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CORNELL UNIVERSITY

THE

President's Report

1907 - 1908

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CORNELL UNIVERSITY

SIXTEENTH ANNUAL REPORT

OF

PRESIDENT SCHURMAN

1907 - 1908

WITH APPENDICES CONTAINING REPORTS OF THE DEANS
OF FACULTIES, DIRECTORS OF COLLEGES, THE
REGISTRAR, LIBRARIAN AND
OTHER OFFICERS

ITHACA, NEW YORK
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NOVEMBER, 1908

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TABLE OF CONTENTS

PAGES

I FORTIETH ANNIVERSARY CELEBRATION 5–7
The Fourth Ten Year Book 6–7

II TRUSTEES AND FACULTIES 7–16
Mortality in the Board of Trustees 7–8
Standing Committees of the Board of Trustees 8
Retiring Professors 9–10
The Carnegie Foundation 11
New Appointments to the Faculty 12–14
Faculty Statistics 14–15
Professorial Salaries 15–16

III EDUCATIONAL LEGISLATION 16–23
Entrance Requirements 16–18
Entrance by School Certificate 18–19
Administrative Board for Freshmen and Sophomores 19–21
Relation of Arts and Professional Courses 21–22
Graduate Students 22–23

IV STUDENTS 23–29
Statistics of Enrollment 23–26
Student Conduct 26–27
Halls of Residence 27–29

V COLLEGES AND DEPARTMENTS 29–60
The Graduate Department 29–32
The College of Arts and Sciences 32–35
The College of Law 35–36
The Medical College 36–41
The New York State Veterinary College 41–44
The New York State College of Agriculture 44–46
The College of Architecture 46–48
The College of Civil Engineering 48–49
The Sibley College of Mechanical Engineering and Mechanic Arts 49–51
The Summer Session............................ 51–53
Sage College 53–56
The Military Department 56–60

VI THE LIBRARY 60–61

VII THE INFIRMARY 62–64

CONTENTS

VIII ENLARGEMENT OF THE CAMPUS 64–66

IX FINANCES 66–74
Productive Funds and Investments 66–68
Donations 68
Income and Expenditures 69–72
Buildings and Equipment 73

X NEEDS OF THE UNIVERSITY 73–74

APPENDICES

I Changes in the Staff of Instruction ... I–VIII
II Report of the Dean of the University Faculty .... VIII–XXIV
III Report of the Dean of the Faculty of Arts and Sciences .... XXV–XXXVIII
IV Report of the Director of the College of Law .... XXXIX–XLIII
V Report of the Director of the Medical College .... XLIII–L
VI Report of the Secretary of the Ithaca Division of the Medical College ... LI–LV
VII Report of the Director of the New York State Veterinary College ... LVI–LXIV
VIII Report of the Director of the New York State College of Agriculture LXIV–LXVII
IX Report of the Director of the College of Architecture .... LXVIII–LXXI
X Report of the Director of the College of Civil Engineering .... LXXI–LXXIII
XI Report of the Director of the Sibley College of Mechanical Engineering and Mechanic Arts .... LXXIV–LXXVII
XII Report of the Director of the Summer Session .... LXXVIII-LXXXV
XIII Report of the Warden of Sage College LXXXVI–LXXXIX
XIV Report of the Registrar .... LXXXIX–XCIX
XV Report of the Librarian .... C–CV
XVI Publications by University Officers .. CVI–CXLIV

PRESIDENT'S REPORT

FOR 1907–1908

To the Board of Trustees:

The President of the University has the honor to submit to the Board of Trustees the following Report for the year 1907–1908. The Report covers the period from September 30th, 1907, to September 30th, 1908.

FORTIETH ANNIVERSARY CELEBRATION

At the close of the academic year 1907-1908 forty years had elapsed since the University first opened its doors in 1868 and the event was appropriately celebrated during Commencement Week by a general reunion of all Cornellians. In response to the call sent out by the committee in charge, it is estimated that about 2,000 alumni and former students returned to Ithaca to renew old associations and to commemorate the remarkable achievements wrought by their Alma Mater in the comparatively short time since she first took her place in the sisterhood of American universities. The formal exercises were held in the quadrangle immediately in front of Goldwin Smith Hall. They consisted of addresses by the first President of the University, by President Schurman and by Judge Frank H. Hiscock of the class of 1875. For the success of this reunion and celebration great credit is due to Mr. Charles E. Treman, '89, chairman of the committee in charge.

In connection with the celebration of the Fortieth Anniversary of the Foundation of the University should be mentioned the preparation of the 1908 Ten Year Book, being the fourth volume in the series of Ten Year Books. It contains the names of all students and officers of the University from 1868 to 1908. The names of the students are given in alphabetical order, followed in each case by the student's date of entering and the date of leaving the University, the course pursued, and the degree taken (if any) and the date thereof, with his present address and occupation. This is followed by a geographical index in which the distribution of all former Cornell students throughout the United States and foreign countries in their alphabetical order it shown. The volume also contains a list of graduates given in the order of graduation with the grouping followed in the programme of the annual commencements. For the first time the Ten Year Book also contains a list of all persons who have attended the Summer Session and the Short Winter Courses.

This volume will be of great value to the University and to all its graduates and former students. It contains about 26,000 names. The preparation of it has entailed prodigious amount of work, which has fallen upon Mr. David F. Hoy, the Registrar of the University, Chairman of the Committee of the Alumni appointed by the Board of Trustees to prepare the volume. As Mr. Hoy's time was already fully occupied by the work of the Registrar's office, the assumption of these additional duties imposed upon him a burden which few men could have carried. And both for the excellent volume he has produced and the extraordinary labors he has performed in producing it he deserves the profound appreciation and gratitude of the University and of all its graduates and former students.

TRUSTEES AND FACULTIES

The year was one of unusual mortality in the Board of Trustees. On the 2nd of October, Mr. Samuel Dumont Halliday passed away after an illness of many months. He was chairman of the Executive Committee and a member of the Finance Committee as well as University Attorney. He was a man of massive common sense, great sagacity and rich knowledge of men and affairs, and he justly exercised a large influence in the deliberations of the Board. Another active Trustee was lost to the Board by the death of Mr. George Russel Williams, which occurred on the 2nd of December. Mr. Williams had long been Chairman of the Finance Committee. Charged more than any other Trustee with the responsibility of investing the funds of the University, the record of his administration of this great trust is a high and lasting tribute to his wide knowledge, sane judgment, conservative temperament and unselfish devotion to the welfare of the University. Before the community had recovered from the gloom of these two bereavements, of which previous illness had given some warning, it was shocked on the morning of the 22nd of January by the announcement of the sudden death of Mr. Franklin C. Cornell. A son of the Founder of the University, he had been a member of the Board of Trustees since 1895, and during the great material expansion of the University in the last decade he had been Chairman of the Committee on Grounds. His foresight, his sound judgment, his tenacity of purpose, his knowledge of practical affairs and his business training rendered him an unusually valuable and helpful Trustee. Mr. Cornell, Mr. Halliday and Mr. Williams were all residents of Ithaca, where they are mourned as kind friends, good neighbors and public-spirited citizens. Their departure inflicts on the business administration of Cornell University a severe loss which is keenly felt by the Board of Trustees and especially by the Executive Committee.

The deaths already mentioned left three important vacancies in the standing committees of the Board of Trustees, which have been filled in accordance with the recommendations of a special committee. Mr. R. B. Williams succeeds his brother, the late Mr. George R. Williams, in the important position of chairman of the Finance Committee, to which Mr. Van Cleef and Mr. R. H. Treman were also added; Mr. Newman goes on the Committees on Appropriations and Auditing; Mr. C. E. Treman on the Committees on Grounds and Auditing; Mr. Blood takes Mr. Cornell's place as chairman of the Committee on Grounds; and Mr. Van Cleef succeeds Mr. Halliday as University Attorney. The Standing Committees as now constituted are as follows: (1) Committee on Buildings: R. H. Treman, Chairman, the President, the Treasurer, R. B. Williams; (2) Committee on Grounds: C. H. Blood, Chairman, the President, C. E. Treman; (3) Finance Committee: R. B. Williams, Chairman, H. B. Lord, the President, M. Van Cleef, R. H. Treman; (4) Committee on Appropriations: The President, Chairman, H. B. Lord, J. T. Newman; (5) Auditing Committee: H. B. Lord, Chairman, J. T. Newman, C. E. Treman.

All the members of these committees are residents of Ithaca. It was, however, voted by the Board that at a subsequent meeting, Trustees who live outside of Ithaca should be appointed as additional members. In these days of telephones out-of-town Trustees may be consulted quickly when they are not able to come to Ithaca to attend meetings of the committees. And the University needs the counsel and attention of all the Trustees, and not merely of those who happen to reside in Ithaca.

In June the terms of Trustees R. B. Williams and H. H. Westinghouse expired and they were re-elected to succeed themselves. One of the vacancies in the Board was filled by the election of Mr. Emerson McMillan of New York City. Judge H. L. Taylor was elected by the alumni to succeed himself as Trustee and Judge A. H. Sewell was elected to fill the remaining vacant alumni trusteeship.

In the Faculty the sudden death by pneumonia on December 22, 1907, of Dr. Henry Patterson Loomis, who had filled with success the chair of materia medica, therapeutics and clinical medicine in the Medical College in New York City since the opening of that College in 1898, brought regret and sorrow to his colleagues and a sense of loss to the College.

Dr. James Law retired from active service at the end of the academic year 1907–1908, and was immediately elected professor of the principles and practice of veterinary medicine, emeritus. He will enjoy for life a pension which is furnished to Cornell University by the Carnegie Foundation for the Advancement of Teaching. And few cases show more strikingly the value and the wisdom of Mr. Carnegie's professorial pension fund. For Dr. Law came to Cornell University at its opening in 1868 and has given it forty years of continuous service, and that service has been of extraordinary value and of wide fruitfulness both within and without the University. Dr. Law has trained many of the leaders in veterinary science, he has helped to raise the rank and estimation of the veterinary profession, he has elevated the standards of veterinary education in New York and elsewhere, he has contributed by his investigations to the advancement of the science of veterinary medicine, and as a veterinary practitioner he has aided the

Government in stamping out contagions that threatened vast injury to the live-stock interests of the country. At Cornell University he has built up a College of Veterinary Medicine which, thanks to the wise generosity of the State of New York, it has been possible to make the pride of the profession in this and other states. Happily it will still enjoy the advantage of Dr. Law's sympathy, interest and advice, while he devotes himself, unhampered by administrative or educational duties, to the congenial work of research in the promising field of veterinary medicine.

Professor Simon Henry Gage, in the full and energetic activity of middle life, retired from his professorship at Commencement in order that he might devote his entire time to investigation in embryology and histology, which in the past he has so successfully cultivated while performing also his duties as a teacher. His devotion to research involved a large pecuniary sacrifice, for the service pension which the Carnegie Foundation for the Advancement of Teaching allowed the University for Professor Gage was only about half the professorial salary he surrendered. This is a case which emphasizes acutely the need of endowments for research, of which at present the University has none. As a purely temporary arrangement the Trustees voted a substantial though inadequate subsidy in augmentation of Professor Gage's retiring allowance, while providing him also with laboratory rooms, equipment and a small allowance for assistance. And Professor Gage will remain on the Faculty as an exemplar of disinterested devotion to truth, engaged in the enlargement of human knowledge. Unfortunately undergraduates will lose the pedagogical skill, the enthusiasm, the unwearied labors and the stores of knowledge growing by incessant learning, which Professor Gage has lavished on successive classes for many years.

The following professors are now in receipt of pensions from the University, the funds being provided by the Carnegie Foundation for the Advancement of Teaching:

Name	Date of Appointment
Hiram Corson	1906
Isaac Phillips Roberts	1906
Charles Mellen Tyler	1906
Austin Flint	1906
James Morgan Hart	1907
George William Jones	1907
Simon Henry Gage	1908
James Law	1908

Apart from retirement on pensions there were during the year two resignations which should be mentioned. Professor A. Ross Hill, who (as he states in his letter of resignation) "came here last year with the most definite intention of devoting the rest of my life to the service of Cornell," was called back to Missouri to take the presidency of the University. Though this promotion interrupted prematurely the work Dr. Hill had begun at Cornell, the academic community had time to appreciate at least its beginnings and to become acquainted with the admirable qualities, personal, scholastic and administrative, which Dr. Hill possessed and which (as his colleagues feel) promise him marked success in his new and honorable position in the University of Missouri.

For the other resignation the Governor of the State is responsible. In April he appointed Professor R. A. Pearson State Commissioner of Agriculture. The University ideal of service to the State, its actual relations to the educational work of the State, the support of the College of Agriculture by the State, all conspired to smooth the way for Professor Pearson's acceptance of this appointment. Undoubtedly he has an opportunity of rendering great service to the agricultural interests of the State. Nevertheless his withdrawal from the College of Agriculture is a very serious loss; for in the large and important department of dairy industry he was not only the nominal head but the actual moving force and directing spirit and in the Faculty he was an influential and most helpful member.

The following new appointments to professorships were made during the year:

David Albert Molitor was appointed professor of topographic and geodetic engineering. Born in 1866, Mr. Molitor received his early education in the schools of Detroit and St. Louis and in 1883 he entered Washington University where he pursued the civil engineering courses for four years. In May, 1887, he went to Europe and there received an appointment from the German Government as engineer on the construction of the strategic railway, Weizen-Immendingen, in the Grand Duchy of Baden. On the completion of this railroad in 1890 and after four months of travel in Europe and England he returned to America and accepted a position as assistant engineer on the construction of the Mississippi River bridge at Memphis. During the period 1892--1898 Mr. Molitor, as a member of the engineering department of the United States Army, was in charge of important works connected with the improvement of the rivers and harbors of the great lakes and the following year he directed a party on precise spirit leveling for the United States Board of Engineers on Deep Waterways. At the end of 1899 he left the government service to engage in business but in 1906, when it was decided to build a lock canal across the Isthmus of Panama, he accepted a position with the Isthmian Canal Commission on the design of the great locks. Mr. Molitor is a member of the American Society of Civil Engineers, the American Association for the Advancement of Science, the National Geographic Society, and the Society for the Promotion of Engineering Education, and he is well-known as a writer on engineering subjects.

Ervin Louis Phillips was appointed professor of military science and tactics. Mr. Phillips graduated from Cornell University with the degree of A.B. in 1891 and was soon after commissioned Second Lieutenant of Cavalry in the United States Army and assigned to the Sixth Regiment. In 1893, after two years of service in the west, he entered the United States Infantry and Cavalry School for Officers at Fort Leavenworth, Kansas, graduating in 1895. He then spent six months in travel abroad and later upon his return to Kansas, he acted as secretary and treasurer of the United States Cavalry Association for two years. Mr. Phillip's war service began in 1898 and included both the Spanish War and the Philippine Insurrection. He has since served a second tour of duty in the Philippines covering two years, and since 1905 has been engaged in cavalry work at Fort Myer, Va. In July, 1898, he was raised to the rank of First Lieutenant and in 1901 he received a further promotion to a captaincy, since which time he has been with the Thirteenth Regiment.

Sutherland Simpson was appointed professor of physiology in the Ithaca Division of the Medical College. Born in 1863 in the Orkney Islands, Scotland, Mr. Simpson took his bachelor's degree in science at the University of Edinburgh in 1894. The following year he began the study of medicine at Edinburgh and in 1899 he obtained the additional degrees of Bachelor of Medicine and Bachelor of Surgery. He was then appointed assistant in physiology to Professor Schäfer at the University of Edinburgh and in 1902 he was made lecturer in experimental physiology, having in the meantime taken the degree of Doctor of Medicine in 1901, which he later supplemented by the degree of Doctor of Science in 1903. Professor Simpson is a member of the English Physiological Society and of the British Medical Association and has published numerous original contributions to the literature of physiology.

Andrew Hunter was appointed assistant professor of biochemistry. A native of Edinburgh, where he was born in 1876, Mr. Hunter studied at the University of Edinburgh from 1892 to 1901, receiving the degree of M.A. in 1895, B. Sc. (summa cum laude) in 1899, and M.B. and Ch. B. in 1901. During 1901–1902 he was house physician at the Edinburgh Royal Infirmary and later became assistant to the professor of physiology at the University of Edinburgh. From 1905 to 1908 he was engaged in biochemical researches as Carnegie Research Fellow in the Universities of Berlin, Heidelberg and Edinburgh, and he comes to his present position from the University of Leeds, where he has been serving as demonstrator of physiology. Professor Hunter is a member of the English Physiological Society and besides being the author of various papers on biochemical subjects he has since 1906 acted as one of the reviewers on the staff of the *Zentralblatt f. d. gesamte Physiologie u. Pathologie des Stoffwechsels.*

The number of members of the instructing staff is as follows:

	At Ithaca	In New York	Total
Emeritus Professors	7	1	8
Professors	75	9	84
Clinical Professors	–	21	21
Assistant Professors	64	3	67
Lecturers	6	2	8
Instructors	122	47	169
Assistants	144	47	191
	418	130	548

During the forty years of the existence of the University the instructing staff, excluding the Medical College in New

York City which was founded in 1898, by decades has been as follows:

Year	Emeritus Professors	Professors	Assct. Profs.	Asst. Profs.	Lects.	Insts.	Assts.
1868–1869	–	19	–	4	–	–	3
1878–1879	–	25	1	13	1	9	–
1888–1889	2	33	4	13	–	41	4
1898–1899	4	53	2	31	5	84	80
1907–1908	7	75	–	64	6	122	144

These figures show an undue increase in the proportion of instructors and assistants to the teachers of professorial rank. In other Reports attention has also been called to the fact that professorial salaries have not advanced with the increase in the cost of living. This replenishment of the ranks of the instructing staff with junior teachers on small salaries and the failure to provide suitable salaries for the men of professorial rank, are menacing the dignity, importance and attractiveness of the teaching profession in America. If intellect is to be well-trained in America there must be tangible evidence that the public set a fair value on highly educated men. Otherwise the best brains of the country will be lost to the teaching profession. As Burke has well said, "the degree of estimation in which any profession is held becomes the standard of the estimation in which the professors hold themselves." Hence it is scarcely an exaggeration to assert that the provision in Colonel Vilas' magnificent bequest to the University of Wisconsin for the establishment of certain professorships with salary of not less than $8,000 each, will, if it becomes at once effective, mark an epoch in the development of a proper standard for the estimation of professors in the United States.

The problem of securing men of the highest character, ability, and training to fill professorial vacancies is at best a difficult one. Cornell has never limited itself to the graduates of the University, to the State in which it is located, or even to America. Two years ago a gentleman in France was appointed to a professorship; this year Leeds University, England, and Edinburgh University, Scotland, have furnished two professors. The effect of this policy of selecting professors without any restrictions upon the field of choice was described by *The Evening Post*, in an editorial on that subject in its issue of March 13th, as follows:

> "In the East, Cornell and Johns Hopkins, comparatively new institutions, have been similarly free and untrammelled in their choice; and this policy of taking their own wherever they could find it has been one great cause of the rapid progress of these two Eastern institutions."

EDUCATIONAL LEGISLATION

During the year both the University Faculty and the Faculties of the separate Colleges have given much consideration to educational problems which were pressing for solution. One after another was the subject of prolonged deliberation and discussion, first in committee and afterwards in special Faculty meetings. Detailed and interesting accounts will be found in the reports of the Deans, especially in the report of the Dean of the University Faculty (Appendix II) and the report of the Dean of the Faculty of Arts and Sciences (Appendix III). Here there is space only to summarize results.

(1) In the first place, the requirements for admission to all the Colleges have been revised and, with slight deviations, made uniform throughout the University (except in the Medical College in New York City, which in and after September, 1908, is to admit only graduates in arts or science or others of equivalent education). This revision had become imperative for several reasons. One of them, though not intrinsically the most important, was that the published

requirements for admission were lower than the demands made upon the great majority of matriculants in consequence of the restrictions under which certificates of admission were received by the University or granted by the Regents or other accrediting authorities. A more substantial consideration was that the existing formulation of entrance requirements lacked the flexibility necessary for correlation with the courses as now generally arranged in the public high schools, especially of the State of New York and in the west, and as a result of this rigid prescription a candidate for admission not infrequently found himself unable to secure credit for solid work on which he had spent two or three years as a pupil in the high school. Furthermore, while the educational validity and efficacy of the existing entrance requirements were not disputed, it was believed that a different grouping would not be inferior in this respect while in other respects it was decidedly preferable. And, lastly, it was thought better that the unit in terms of which the entrance requirements are defined should be that which in recent years has come into general use throughout the country, namely, "the equivalent of a course pursued throughout one year in a secondary school with five recitations a week." These and other considerations led to the action finally taken by the Faculties of the different Colleges. Fifteen units are prescribed for admission and, in the College or Arts and Sciences (which may be regarded as typical), these are defined as follows: English, 3 units; history, 1 unit; algebra, 1 unit; geometry, 1 unit; foreign languages, 4 units; elective, 5 units (these "elective" units to be taken from a list of subjects which includes, in prescribed quantities or units, physical science, additional mathematics, additional foreign languages, etc.) In the Colleges of Engineering and the College of Architecture, also, fifteen units are prescribed but here the number of foreign language units is reduced to three and it is specified that these three units shall be in either French or German, while the number of elective units is also reduced to four, thus leaving two units to be designated in higher mathematics, the total result being as follows: English, 3 units; history, 1 unit; elementary algebra, 1½ units; plane geometry, 1 unit; solid geometry, ½ unit; advanced algebra, ½ unit; plane trigonometry, ½ unit; French, 3 units, or German, 3 units; elective, 4 units. The Faculties have still further recommended that the student take at least three of the four elective units in language and history.

(2) Secondly, the University accepted the invitation of the committee of the Association of Colleges and Preparatory Schools of the Middle States and Maryland to participate in the organization of a "College Entrance Certificate Board." A meeting of delegates was held at Philadelphia on May 9th, at which Dean Crane represented Cornell University, when definite action was taken. If the committee's report is adopted by the Association the matter will then be referred to the institutions embraced in that organization for their acceptance. Meanwhile it is proper to say that there are already similar organizations in New England and in the states of the middle west. The object is to provide a general scheme for the admission to college by means of school certificates. It does not involve either advocacy of that system or opposition to it, but merely impartiality and effectiveness in its administration in the case of those institutions which have adopted it. As Dean Crane points out, the objection to admission by certificate so far as Cornell University is concerned has not been on account of the scholarship of the students admitted by certificate, but almost exclusively on the ground of the difficulty of administering the system. This will be removed when schools are placed upon the accredited list and removed from it,

not by the University but by a general board representing the Association of Colleges and Preparatory Schools of the Middle States and Maryland, which board will also prescribe the form of certificate and the rules and regulations for its use.

Students from New York State are admitted on certain Regents' credentials. These have been simplified by the issuance by the State Education Department of a new 'College Entrance Diploma." The requirements of this diploma correspond very closely to the new requirements for admission to the University, which have already been described, and in December the Faculty voted to accept this State "College Entrance Diploma" in lieu of those requirements for matriculation.

(3) Another piece of important legislation which is likely to have large, beneficent and far-reaching results, not only for the College of Arts and Sciences (which alone was immediately concerned), but for all the Colleges of the University, was effected by the joint action of the Trustees and the Faculty of Arts and Sciences.

A scheme of education which permits students to elect their own studies, whatever its advantages, is at any rate attended with great risks, especially for the younger and inexperienced undergraduates. The modification of this system which Cornell University has found it wise and expedient to adopt in the interest of Arts students has been described in previous Reports. A considerable portion of the work of freshmen and sophomores is, within certain limits, now prescribed. But the care and supervision of these underclassmen has hitherto remained in the hands of the entire Faculty of Arts and Sciences, a body of thirty-seven professors, thirty-three assistant professors, forty-three instructors, and sixty-six assistants, of whom only a small fraction had anything whatever to do with the instruction of freshmen and sophomores in Arts. The principal work of many of the departments lay with juniors, seniors and graduates, while the large departments of mathematics, physics and chemistry gave ten times as much instruction to students in technical and other courses as they gave to freshmen and sophomores in Arts. An exhaustive study made by the President, and submitted to the Trustees and the Faculty, demonstrated that three fourths of all the registrations (1,444 out of 2,002) of freshmen and sophomores were found in twenty-eight courses whose minimum enrollment was twenty. And the conclusion was drawn that the teachers of these courses (with some variations for special reasons, like recognized interest in "college" work and "college" students) constituted the natural Faculty group for the care and instruction of freshmen and sophomores. After prolonged and thorough discussion this policy was adopted by the University, the President being authorized to name the Faculty group of teachers who, under the chairmanship of Dean Hull, should constitute the new organization. The group was designated an Administrative Board in Charge of Freshmen and Sophomores, and the members, as appointed, were the following: Dean Hull, chairman, Mr. Adams, Professor Bristol, Professor Browne, Professor Catterall, Professor Creighton, Professor Faust, Mr. Gordon, Mr. Ibershoff, Professor Olmstead, Professor Prescott, Professor Reed, Professor Sampson, Professor Shearer, Professor Tanner, Professor Tarr, and Professor Durham, secretary. It will be observed that while the Board consists of seventeen members fourteen are of professorial rank. This Board is put in charge of freshmen and sophomores and granted "full power to supervise their work and to provide means for making it effective," and for the accomplishment of that end it is "empowered to make such rules, regulations and arrangements as they may deem expedient."

This important legislation was enacted by the Trustees and the Faculty of Arts and Sciences on the recommendation of a joint committee. The initiative was taken by the Trustees by the adoption of a resolution early in February, which was communicated to the Faculty. The preamble to that resolution contains the following paragraph, which describes both the basis of the reform which has been adopted and the expectations which are cherished in regard to its results:

> "Among the best of our colleges and universities the great break in the course of a collegiate or liberal education comes at the end of the second year, both as regards the curriculum and the methods of instruction. This differentiation of the work, methods of instruction, and educational aims of the first two years of the course in the College of Arts and Sciences in contrast with those of the later years of that course calls for a corresponding differentiation in the staff of instruction, which could not fail to insure greater thoroughness of instruction, greater simplicity and effectiveness of administration, and closer personal and social intercourse between teachers and students."

(4) Fourthly, the mutual relation of Arts and professional courses was the subject of serious, prolonged, and varied consideration in the Faculties of several Colleges of the University and also in the Board of Trustees. The question was discussed in its different ramifications and with considerable detail in the President's Report for 1906–1907. Here it will suffice to report the progress made during the year 1907–1908. And the most salient change in the situation is the decision to require, in and after September, 1908, a college degree in arts or science for admission to the Cornell University Medical College in New York City,—this degree to cover a minimum of a year's work in each of chemistry, physics and biology. The Faculty of Law favor the requirement of a year, and in the near future of two years, of Arts work for admission to the course in Law, and the Trustees have this proposal under consideration at the present time. The Faculties of Engineering have drawn up five year

courses, as alternatives to the present four year courses (which they desire to retain), in which are included over seventy hours in Arts and Sciences and at least thirty hours in literary and historical studies, the students in these five year courses to register for the first two years in the College of Arts and Sciences and for the remaining three in one of the Colleges of Engineering; and these plans have been referred by the Board of Trustees to the Faculty of Arts and Sciences with the request that the Faculty consider the matter and report back their recommendations to the Board. Finally, courses suitable for students in preparation for the vocations of teaching, organized philanthropy, the civil service, and business management were arranged by the Faculty of Arts and Sciences for the benefit of juniors and seniors in that College and these groups of studies will hereafter be included in the list of electives.

(5) Fifthly, besides making the foregoing provisions for matriculants, for freshmen and sophomores, for upper-classmen, and for professional students, the Faculty have also carefully considered the interests of graduate students. So far as instruction is concerned these students are now in charge of small committees composed of the professors under whom they take their major and minor subjects. It is believed that no improvement on this plan is possible, for it facilitates and encourages free and healthy intercourse between student and teacher, who are kept in constant touch by a common interest in research. It is indeed possible that in their laudable anxiety to maintain high standards the Faculty have insisted on too great rigidity in the rules governing the admission of students to the Graduate Department, and there are some professors who believe that Cornell undergraduates who have already specialized in some field with success should be admitted to graduate standing at the beginning or middle of their senior year. This is a matter which is likely to come up for consideration

at a later date. In the meantime there is a general feeling that efficiency of administration would be promoted by a reorganization of the Graduate Department in such a way as to concentrate responsibility for the work of the Department in the hands of the professors who are actively engaged in instructing graduate students. A Committee, of which Dean Crane was chairman, has reported to the Faculty in favor of this change, and the Faculty informally adopted the principle with the understanding that the matter should be brought up again for settlement at the beginning of the next University year.

STUDENTS

The number of different persons who received instruction in the University in the year 1907–1908 was 4,465. This is an increase of 240 over the enrollment for the preceding year, when the figures were 4,225, and an increase of more than 1,000 over the enrollment of four years ago (1903–1904), when the figures were 3,423.

The distribution of these students among the different courses is shown by the following table, which gives the corresponding figures for the preceding years since the year 1904-1905:

Year	Graduate Department	Arts and Sciences	Law	Medicine		Veterinary Medicine	Agriculture	Architecture	Civil Engineering	Mechanical Engineering	Summer Session	Winter Course in Agriculture	Names counted twice	Total
				Ithaca	New York									
1904–1905	211	684	228	90	316	110	189	68	385	1060	619	199	318	3841
1905–1906	232	705	222	59	335	88	230	81	425	1096	642	248	241	4122
1906–1907	239	748	211	63	285	86	278	82	466	1081	755	244	297	4225
1907–1908	249	820	206	63	257	82	348	100	511	1127	841	270	378	4465

The records of Cornell University always carefully distinguish between students who, having passed the examinations for admission, pursue courses leading to degrees, and attendants in short or special courses who enter without examination. Of these latter there are two groups, the Summer Session and the Winter School in Agriculture. Both are excluded from the following table, which takes account only of students regularly enrolled in courses leading to degrees during the academic year from September to June:

Year	Graduate Department	Arts and Sciences	Law	Medicine	Veterinary Medicine	Agriculture	Architecture	Civil Engineering	Mechanical and Electrical Engineering	Total exc. duplicates
1904–1905	211	684	228	406	110	189	68	385	1060	3318
1905–1906	232	705	222	394	88	230	81	425	1096	3461
1906–1907	239	748	211	348	86	278	82	466	1081	3523
1907–1908	249	820	206	320	82	348	100	511	1127	3734

This table shows that the attendance of regularly enrolled students in 1907–1908 was 3,734. The increase over the attendance of the preceding year was 211. While most of the Colleges of the University exhibit gains, none has gained so much as the College of Arts and Sciences which shows an increase of seventy-two over the attendance of 1906–1907. Then comes the College of Agriculture with an increase of seventy, the College of Civil Engineering with an increase of fifty-five, the Sibley College of Mechanical Engineering and Mechanic Arts with an increase of forty-six, and the College of Architecture with an increase of eighteen (in virtue of which its enrollment for the first time touches the 100-mark), and the Graduate Department with an increase of ten. Of the 320 students registered in Medicine sixty-three were in Ithaca and 257 in the Medical College in New York City.

Of these 3,734 regularly enrolled students 3,331 were men and 403 women. And of those 403 women 313 were pursuing studies in the Arts and Sciences, thirty-four in Agriculture, twenty-four in Medicine, and four in Architecture, while thirty-eight were engaged in specialized work and investigation in the Graduate Department.

A little more than half (2,025) of these 3,734 regular students came from New York State. From Pennsylvania came 322, New Jersey, 190, Ohio, 155, Illinois, 108, and Massachusetts, 101, while 690 came from forty-five other states and territories of the United States (including Porto Rico, Hawaii and the Philippine Islands) and 143 from twenty-eight different foreign countries, (including China, 28, Cuba, 14, Argentine Republic, 14, Canada, 12, India, 11, Japan, 11, Mexico, 7, Brazil, 7, Peru, 6, England, 4, Australia, 3, Switzerland, 3, etc.)

Coming as Cornell students do from so many different states and countries, it is not surprising that many of them should have partially or wholly completed a college course before coming to Ithaca. In the Graduate Department there are 249 college graduates and 219 other college graduates are enrolled as undergraduates in the professional or liberal courses. But in addition to these graduates Cornell draws a large and increasing number of undergraduates from other colleges and universities. The number of new students—college graduates and undergraduates—admitted to advanced undergraduate standing in 1907-1908 was 225. Ten years earlier (in 1897-1898) the number was 108. The work done by these students who come from other colleges and universities to Cornell is indicated by the following exhibit for 1897-1898 and 1907-1908:

YEAR	Arts and Sciences	Agriculture	Architecture	Civil Engineering	Mechanical Engineering	Law	Veterinary Medicine	Total
1897–1898	24	9	2	15	41	15	1	108
1907–1908	43	22	10	60	79	11	0	225

The entire number of students who have been enrolled in the University since it opened in 1868 is approximately 26,000.

The number of degrees conferred in 1907-1908 was 715, of which 649 were first degrees and sixty-six advanced degrees.

In the forty years that have elapsed since the opening of the University 10,475 degrees have been conferred, of which 9,451 were first degrees and 1,024 advanced degrees. Of these 10,475 degrees about one tenth (1,028 first and seventy-two advanced) were granted during the administration of President White, who resigned in 1885. Or, putting the matter in another form, the University conferred in 1908 almost two thirds as many degrees as it conferred during the entire period of President White's administration from 1868 to 1885.

It has been stated that 4,465 persons attended the University in 1907–1908 and that the number of regularly enrolled students was 3,734. This academic community of thousands of young men is almost entirely self-governing, and few things are more admirable in themselves or more encouraging for the future of the republic than the exemplary manner in which they conduct themselves. Now as always Cornell University is a place for hard work, and no indolent or dissolute student could for any length of time maintain the standing demanded of him. Nevertheless occasional cases of drunkenness or vice do occur which bring disgrace on this studious, temperate and moral community. The policy of the University in such cases, whenever they become known, is to appeal to the delinquent's sense of honor, right and filial obligation, to warn him of the consequences of a repetition of the offence, and, when neither appeal nor warning is of any avail, to remove the offender from the University. But oftener than not the offence may not come to the cognizance of the authorities of the University. The only remedy for such cases is the maintenance of a high standard of public opinion in the student body, and to that end public addresses and appeals are on ordinary occasions of less value than informal expressions of opinion in and by groups of men—classes, societies, fraternities and the like—which in time would pervade and leaven the entire academic community. And there is one definite evil for the removal of which the President appeals to the senior class of 1908–1909. The senior banquet is entirely a senior affair. It has now become a disgrace to the University. For their own sakes and for the good name of the University the President appeals to the seniors either to abolish or completely reform this demoralizing celebration.

HALLS OF RESIDENCE

On the physical, economic and social sides the University has done far too little for the thousands of young men who come to it for instruction. Elsewhere in this report the President has described in some detail the provisions which have been made for the young women who reside in Sage College and Sage Cottage, and aside from the fact that even these buildings cannot accommodate more than half of the women enrolled, the Trustees may well feel that in this respect they have left little to be desired. But a vastly larger number of young men—indeed all except the comparatively few whom the fraternities house—are still compelled to find room and board where they can about the city and for the most part in boarding and lodging houses built and operated by private individuals with a view single to the income which they derive therefrom.

Over these private establishments the University can obviously exercise no control or supervision whatever, thus losing one of the most effective means of safeguarding the health and the social, moral and physical well-being of the undergraduate body, while the disadvantages from an educational and even disciplinary standpoint arising from the fact that so large a majority of the students are so widely scattered under so many different roofs, are at once appreciable when it is considered what effective forces would be at work for the promotion of healthy social intercourse, solidarity, and the crystallization of student public opinion, were all these young men brought together under common roofs and at common tables.

But it is not merely a social question, nor even an educational question alone. The rapid growth of the student body, a growth which has far exceeded the extension of student lodging facilities in the city—and as this report goes to press the President is in receipt of figures indicating a large increase in the registration for the coming year—has created an economic problem of the gravest consequence and one which strikes at the very root of that democracy of which the University has always been so justly proud. All recognize, of course, that the cost of living has substantially advanced during the last decade, and it should be stated in fairness that perhaps the advance in the price of table board which the students now have to pay as compared with earlier years only reflects this general condition. But quite aside from this the charges imposed upon students for rentals in these private lodging houses have been forced by peculiar local conditions up to a level altogether disproportionate to the general advance in the cost of living.

Cornell has long held the proud name of "The People's University," endeavoring always to minister in terms of higher education to every legitimate need of the people of the State and nation, and it would be unfortunate, indeed, and a sad check to one of the noblest ambitions of its Founder, if for any reason the opportunities which it affords should be denied to any one who is physically and mentally fitted to pursue and profit by its instruction. But there is danger of this very result if some provision is not made soon for the proper housing of the young men of the University under conditions that will afford them the ordinary conveniences of life at a moderate and reasonable cost.

In failing to provide halls of residence for these thousands of young men the University, however unintentionally or unavoidably, is fostering a monopoly which imposes great financial hardship upon its students. And, though the President has referred to the matter again and again both in his annual reports and in his public utterances, he repeats with renewed and added emphasis the statement that no friend of the University could render it a greater or more lasting service than to make possible the establishment of a system of residential halls on the campus such as was described in the President's Report for 1906–1907 (pp. 14–17).

COLLEGES AND DEPARTMENTS

(1) *The Graduate Department.* In an earlier section mention was made of the proposal to organize this division of the University as a separate School with a Faculty distinct from the University Faculty. This new Faculty would consist of those professors and assistant professors who are actively engaged in the work of the Graduate Department either by giving instruction to graduate students

in the class room or guiding and supervising their investigations in laboratory and library. This improvement in organization is likely to be effected in the course of the coming year. It is certainly needed as this division of the University has outgrown the present cumbrous machinery of administration. The attendance of graduate students has increased fifty per cent in ten years and almost 500 per cent in twenty years. In 1887–1888 it was fifty-two, in 1897–1898 it was 166, and in 1907–1908 it was 249—the largest enrollment in the history of the University. It is to be borne in mind too that this augmentation of numbers has been in spite of the charge for tuition which was imposed in 1894, tuition before that date having been free to graduate students.

In the Graduate Department as in the University as a whole there is constant danger that the national tendency to worship mere magnitude may distort the vision of the Faculty and especially of the Trustees and friends of the University. It is important, therefore, to keep clearly in view the essential objects of a graduate school. These are the enlargement of existing knowledge and the training of young men and women of superior ability and education in methods of independent investigation so that they too may in time make some contribution to the stock of human knowledge. A love of knowledge, an ardent desire to wrest something from the unknown, a conviction that science and scholarship are along with virtue the chief good of human life, would seem to be the animating motives of a life of research. Given this subjective equipment in combination with superior powers of observation, reasoning and imagination, and productive scholarship and science are assured. But these gifts are not possessed by all professors, and still less by all graduate students. And it is a grave question whether graduates of mediocre ability—

minds lacking in energy, ambition and imagination—should, after they have demonstrated their quality in a probationary year, be encouraged or even permitted to continue work intended to fit men to become scholars and investigators. Similarly there should be a differentiation among professors of those who are qualified to engage in research and guide others in the same path and those who are pre-eminent as teachers and assimilative scholars. Surely both are honorable careers, though different. That everybody is fit for everything is a fallacy dangerous enough in politics, but in education it is fatal and paralyzing.

The problem, therefore, which confronts the University in connection with the Graduate School is to find the right sort of men for investigators, whether as professors or students. And having found them it is the duty of the University to provide the necessary means for the prosecution of their work. This involves suitable salaries for professors, leisure for productive work, and the requisite apparatus and other instrumentalities for research. It is not creditable that a professor, in order to get time for scientific investigation, is compelled to make large pecuniary sacrifices, as Professor Gage has done at Cornell. What better use can be made of money than to invest it for the support of original research? This is an obligation which men of wealth and great states owe to the progress of civilization. And there are departments at Cornell University which, with such support, would amply demonstrate the wisdom of the investment. For example, the department of physics last year published or prepared no less than forty investigations, an output not equaled in amount as it was not surpassed in quality by any other physical laboratory in the country. And Professor Nichols reports that "in the absence of a special fund for this purpose we are at a serious disadvantage and I desire to point out as the most urgent need of the department at the present moment an annual appropriation of not less than $5,000 to be used exclusively for the furtherance of research."

It is not necessary that professors should abandon teaching to pursue research. As the late Lord Kelvin said to the President, when he visited Cornell a few years ago, the ideal arrangement for the investigator is to combine research with teaching, but with the amount of teaching reduced sufficiently to leave leisure and vigor of faculty for research. The biographer of Pasteur records that that eminent scientist entertained similar sentiments:

> "Pasteur did not suggest that a scientist should give up teaching; he recognized, on the contrary, that public teaching forces him to embrace in succession every branch of the science he teaches. 'But let him not give too frequent or too varied lectures! they paralyze the faculties,' he said, being well aware of the cost of preparing classes."

(2) *The College of Arts and Sciences.* The subject of liberal education, both in the humanities and in pure science, was discussed at considerable length in the Report of last year (pp. 18–37). Of the important events of 1907–1908 in connection with the College, the first is the selection of Professor Charles H. Hull to succeed Dr. A. Ross Hill (now President of the University of Missouri) as Dean of the Faculty of Arts and Sciences. The appointment was received with universal satisfaction, and Dean Hull may feel that he enjoys, in an unusual degree, the confidence of the Faculty, Trustees and Alumni of the University.

The legislation affecting the College has already been described. The statute creating the Administrative Board for Freshmen and Sophomores involves a clear differentiation of under-classmen from upper-classmen and a less definite differentiation of under-class teachers from the rest of the Faculty (even though these teachers continue to share in the instruction of upper-classmen and graduates). A full realization of this policy would probably lead to the exclusion of upper-classmen from under-class courses and of under-classmen from upper-class courses, and this view finds expression in the annual reports of the professors. "The tendency," says one, "to differentiate the work of under-classmen from the work of upper-classmen should be encouraged, and some regulation forbidding the teaching together of students taken indiscriminately from all the classes would certainly have a happy effect in aiding this differentiation."

This matter may be left to the Administrative Board to settle. Indeed, a good many questions of great importance press for settlement upon that Board. One other is the proper method of instructing under-classmen. The colleges and universities have in the past given less attention to improving the methods of teaching than the schools; and universities certainly have made the mistake of applying to freshmen the methods suitable to the graduate school or to the popular rostrum. But the freshman should not be treated either as an investigator or as a passive listener. Recitation, question and answer, and constant drill are the methods of instruction proper to the freshman class room. The object is assimilation by the ignorant pupil of knowledge with mental reaction upon it. If the modern undergraduate is unresponsive in the class room, that is a natural result of the exclusive use of the lecture system. As one of the professors puts it in his report: "Intellectual overfeeding without intellectual exercise is bound to bring about mental torpor."

The President has every confidence in the ability and wisdom of the Administrative Board to solve these and other problems which concern freshmen and sophomores in the College of Arts and Sciences. And concerning that College as a whole he is happy to report growth and improvement. More than one of the professors' annual reports speak of improvement in the quality of work done by students and of increased seriousness and respect for intellectual discipline and general culture. This encomium is not, however, universal. There are complaints of lack of discipline, of inaccurate knowledge of facts, and of meagre power of thinking. On the whole, however, there can be no doubt that the College is improving. There is evidence, too, that professors and instructors are giving far more thought than in past years to methods of teaching. An example may be found in the English department in which, under the leadership of Professor Sampson, the courses have been reorganized with a view to making more effective the courses open to freshmen, to framing intermediate courses as parts of an organic whole, and diversifying and strengthening the courses for advanced students and graduates. This department received reinforcement and inspiration from the presence and cooperation of Professor Woodberry, whose services have fortunately been secured for next year also.

In numbers the College has increased from 705 in 1905-1906 and 748 in 1906-1907 to 820 in 1907-1908. The temporary anxiety felt in regard to attendance may now be dismissed. But the problem of efficiency is always with an earnest and conscientious Faculty. As one of the professors puts it in his report:

> "We have in recent years considered at various times the fact that the spirit of the time seems to be threatening to lessen seriously the number of students in Arts. The danger that the spirit of the time may affect the *quality* of our work, and thus render the College unworthy to survive, is, it seems to me, one that is in even more urgent need of consideration."

It is the conviction of the President that the Faculty was never more seriously impressed with the gravity of this problem or more resolutely determined to solve it in the right way than it is at the present time.

(3) *The College of Law.* The attendance last year was 206, excluding registrations of students from other Colleges who took certain courses in Law, chiefly the course in contracts. The attendance in 1906–1907 was 211, in 1905–1906 it was 222; when the century opened (1900–1901) it was 182. These figures confirm the opinion expressed by the late Judge Finch, in one of his annual reports as Dean, that with the rapid multiplication of schools of law in the United States the enrollment at existing schools could not, in the absence of exceptional conditions, be expected to increase. It may be observed that schools of medicine are going through a similar experience.

On the other hand the quality of the preparation of students who enter the course shows a marked improvement. Out of eighty-nine students in the class only thirty-nine are pursuing the first year work in Law without previous study in Arts. This preparatory liberal education extended over one or more years; in the case of five students it embraced a college course certified by the A.B. degree. It is perhaps a still more significant fact that as many as six other students who had not enjoyed the advantage of college work have transferred, or are planning to transfer, to the College of Arts and Sciences to pursue liberal studies before resuming their professional training. These facts clearly indicate a growing realization by the students themselves of the inadequacy of a high school course as preparation for the study of law.

It is the aim and desire of the Faculty eventually to require two years of Arts work for admission to the College of Law. That is a consummation for the future, perhaps the distant future. Meantime the Faculty have endorsed in principle the recommendation of the President's last Report that at least one year of satisfactory work in a college of arts and sciences should be required of all students before admission to the study of law. The facts mentioned in the preceding paragraph would seem to justify this advance, but the Trustees, to whom the recommendation of the Faculty has been referred, feeling keenly the need of keeping the University and its departments in close touch with the high schools of the State, are weighing the recommendation with the greatest deliberation before committing themselves to any definite policy.

(4) *The Medical College.* The Cornell University Medical College in the City of New York has had a prosperous and eventful year. The most momentous event was the prescription of a college degree in arts or science as a condition of admission to the course in Medicine. This action was foreshadowed by the detailed consideration of the question in the last Report which the President concluded with the expectant inquiry "whether it might not be better to demand a degree in arts and sciences, as Harvard and Johns Hopkins already do, especially in view of the need of such an institution for superior instruction and research in the great city of New York?" The question thus raised was discussed fully in the Medical Faculty and also in the Board of Trustees; and the action finally taken was the unanimous decision of both bodies, though the Faculty took the initiative in recommending the change to the Trustees. The new test goes into effect in September, 1908, and in and after 1909–1910 physics, chemistry and biology must also be presented for admission.

Cornell, Harvard and Johns Hopkins are the only schools of medicine in America which require for admission a college degree. But eight others now require at least two years of work in a college of arts and sciences,and fifteen more have given notice of the same requirement which goes into effect at three of them (Yale, Northwestern and George Washington) in 1909 and at the remaining twelve in 1910. This indicates a hopeful advance in medical education in the United States, and it was greatly needed. For of the 335 schools of medicine in the civilized world, no fewer than 161, or forty-eight per cent, were in the United States; and "comparison with European medical schools shows that medical education in the United States is deficient both as regards preliminary requirements and in the length of the medical course."

The foregoing facts and figures are taken from the report of the Council of Medical Education of the American Medical Association presented at the fourth annual conference held at Chicago, April 13, 1908, as published in *The Journal of the American Medical Association*. And at that same conference President Eliot spoke of the experiences of Harvard University in establishing higher preliminary requirements. The requirement of a baccalaureate degree, he said, had seriously cut down the number of students in medicine, but its effect on endowments for the medical school had been very different. "Since we demanded a degree for admission," said Presdient Eliot, "we have had an additional endowment of $4,000,000. Gentlemen, the way to get endowments for medicine is to improve medical education."

The experience of Cornell agrees with that of Harvard in regard to the interest which men of wealth take in the improvement of medical education and the advancement of medical research. The Cornell University Medical College in the City of New York owes its existence and support to one man; and every improvement made in the work of the College, every reaching forth after higher things, every elevation of standard and ideal, have not only had his warm sympathy and approval but have been made possible by his ever-increasing generosity. This munificent patron of the Medical College is averse to any public mention of his name in connection with the enterprise, but his actions prove that he is possessed by a strong desire to enlarge man's knowledge of the medical sciences and to train up medical practitioners of superior capacity and education. Few things could be more encouraging, promising and stimulating for medical science and education in America.

Undoubtedly, too, Cornell will have Harvard's experience of a great and continued diminution in the number of students. Indeed, the falling-off is pretty certain to be greater as the proportion of college graduates in attendance has been smaller at Cornell than it was at Harvard. The Ithaca Division of the Medical College from which students come to New York for the third and fourth years of the course has on the average sent during the last four years one college graduate for two non-graduates, but a very much smaller proportion of matriculants in New York have been college graduates or college students. Consequently only a very small entering class can be expected this year, especially as the requirement of a baccalaureate degree which goes into effect in September was not announced till December last.

During the ten years of its existence the Medical College has enrolled 3,497 students, of whom 582 have graduated. Of these 582 doctors of medicine, 416 have secured hospital appointments—a number remarkably large, especially in view of the standing of the hospitals and the character of the positions concerned.

As to the Faculty of ten years ago, while many new names have been added, the original members, with but two exceptions, are still active. Professor Flint retired two years ago and Professor Loomis, as noted elsewhere, died last year of pneumonia. It has been a Faculty characterized by genuine devotion to the College and great efficiency in the work of instruction, while some of its members have also won distinction for themselves and the institution by their scientific investigations, for which the College, thanks to the munificence of its Founder, has always made the most liberal provision. The new position into which the College has been put by the requirement of a baccalaureate degree for admission, the needs and demands of college graduates when admitted, and the duty of advancing medical science, are bound to modify the type of professor by laying increased stress on scientific attainments and interest and ability in original research. And these controlling circumstances must be constantly kept in mind in filling all vacancies on the staff. A medical school attended only by college graduates, who have already had training for four years in the liberal arts and in the physical, chemical and biological sciences, is a wholly different institution from a medical school attended by pupils whose preliminary education and mental training are limited to the high school. And that difference is accentuated by the further fact that this College is consciously dedicated to research as well as to high grade instruction. A Faculty animated by these ideals and equal to these tasks is absolutely essential to the Cornell University Medical College; nay, it could not be *such a College* without *such a Faculty.* It is hoped that in filling the professorship of physiology vacated by the retirement of Professor Flint it may be possible to find a scientist who meets the new and severe requirements of the College.

A list of the publications of the Medical College since its foundation has been published separately. It makes even to the mind of the layman a very impressive showing. The most fruitful department has been pathology and bacteriology, for which the amplest provision has also been made both as regards staff and equipment. The success attained by that department has been achieved in no small degree through the cordial cooperation of other departments, for the research forces of the College work together in perfect harmony. The methods followed and results obtained are best described in the words of the head of that department, Dr. Ewing:

> "None of our staff has been urged to publish anything until ready, and has been encouraged to pursue themes regardless of the immediate outlook for results; some of these themes, as thyroid therapy, have required an outlay of many thousands of dollars and the united activity of five or six persons. I can assure the Faculty and Council that within a year we shall be able to fully justify this financial and moral support, and to demonstrate that Cornell University has established new standards of research. The time is passed in many fields when individual workers can reach important results single-handed. Many men and much money may be required to bring a problem to a definite solution, and I am not aware that any other American institution has recognized this fact and provided to a similar extent men and money for the pursuit of an important problem in hand. The review of the progress of thyroid therapy by Drs. Rogers and Beebe, now in press, will indicate to some extent the justification of this claim. It will be further justified by other studies on the physiology and pathology of the thyroid and parathyroid glands and in the general therapeutic applications of thyroid and parathyroid products on which important data have been secured. Dr. Buxton's studies on the physical chemistry of agglutination are of first importance but too technical to attract general attention. The work of the Huntington Fund for Cancer Research has progressed under the immediate direction of Dr. Beebe, assisted by Drs. Buxton, Weil, Shaffer and myself. A definite stage of the work on a sarcoma of dogs was reached when the tumor nature of this process was established and the tumors were made to disappear by direct transfusion of the blood of immune dogs, and by the inoculation of standardized prodigiosus toxins.
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> "Other lines of theoretical and practical interest have been pursued, some of which are described in the 2nd Report, 1908, of the Huntington Fund, which contains fourteen contributions."

Other important features of the work of the Medical College and suggestions for meeting existing needs and deficiencies will be found in the admirable report of Dean Polk (Appendix V). The smoothness with which the work of the institution has been carried on for ten years and the universal harmony and good feeling which prevail in the Faculty are in no small degree due to the Dean's kindness, tact and good sense. Where all have done so well it seems invidious to discriminate, but if names are to be mentioned at all, justice calls for an expression of appreciation of the loyal, generous, wise and efficient services of Dr. Stimson, who for ten years has had the College on his mind and heart as the chief interest of his life.

The details regarding the operation of the Ithaca Division of the Medical College will be found in the report of Dr. Kingsbury (Appendix VI), who acted as Secretary during the latter half of the year while Dr. Kerr was absent in Europe on sabbatic leave. The Ithaca Faculty and students look forward with impatience to the reorganization of the curriculum, which, since physics and inorganic chemistry are hereafter to be demanded at entrance, will make it possible to relieve the crowding and overwork from which they are all at present suffering. The complaint at present is that students are given too much to do, and also that the hours are not fairly apportioned among the different subjects. A second reform called for is the reorganization of the Faculty so as to include all professors, assistant professors and instructors who give instruction to medical students. Lastly, a closer association with the Faculty in New York is also deemed desirable. It has been suggested that this might be effected by securing lectures before the medical students at Ithaca from the heads of the departments of the Medical College in New York City.

(5) *The New York State Veterinary College.* The retirement in June of Dr. Law on an age pension furnished to the University by the Carnegie Foundation has been mentioned elsewhere (page 9). He reports for the past year a recovery from the falling-off of matriculants to the

College which was caused by the doubling of the entrance requirement in 1905, and he expresses the opinion that the time for extending the course from three years to four is no longer remote. As veterinary sanitary administration has been a prominent feature of Dr. Law's life work he devotes a large portion of this, his last report as Director, to an examination of the legislative and administrative arrangements made by the State of New York for the protection of its herds against the terrible and increasing scourge of tuberculosis (see Appendix VII). He also asks the State for additional appropriations for the Veterinary College with a view to the improvement of veterinary education, which, with the advance of veterinary science, have been the other objects of Dr. Law's supreme interest.

The College is by law dedicated to both instruction and research. On the side of instruction the object is to send out men properly trained to treat and protect the flocks and herds of the State, which have an aggregate value of more than $170,000,000. With the accumulation of new knowledge of the cause, nature, treatment and prevention of animal disease, the requirements for a veterinary education are constantly increasing, thereby calling for a larger number of teachers and more and better equipment. On the side of research, while the field is inviting and the harvest ripe, lack of means has in the past proved a serious obstacle, though, in spite of all hampering conditions, the members of the Faculty have conducted investigations and produced results of very great value to veterinary science and practice. Still there is not one of the animal diseases prevalent in the State that is not waiting for further investigation into its nature and means of prevention. The extensive losses due to glanders, rabies, anthrax, infectious abortion and tuberculosis can be greatly lessened by accurate knowledge derived from the results of well-directed research along definite and clearly defined lines.

The University has purchased for the use of the New York State College of Veterinary Medicine an experimental farm of 100 acres for the investigation of animal diseases. It is hoped that the State will supply the means necessary for investigation in this inexhaustible field. The College must also have a building for clinics with suitable equipment. And then for the diffusion of knowledge among veterinarians and owners of live stock a bureau of extension work should be organized which will also need an additional appropriation for its maintenance.

To succeed Dr. Law in the Directorship of the College, the Trustees have appointed Dr. Veranus A. Moore, professor of comparative pathology and bacteriology. He has at the request of the President prepared a special report on the condition, work and needs of the New York State Veterinary College which will be separately printed for the use of Trustees and others. It is an instructive survey of the institution and a sober estimate of its needs. The minimum requirements which he sets down for next year are an increase of the annual appropriation for maintenance from $30,000 to $40,000; a new annual appropriation to begin with $10,000 for research, experimental investigations and extension work; and a special appropriation of $125,000 for buildings and equipment for the clinical work of the College. "The total expense," says Director Moore, "of adequately maintaining this College together with the interest on the first cost of the buildings when completed would equal but a fraction of one per cent of the loss to our State by the death of animals from diseases that are largely preventable."

The scientific and practical aid which for many years has been rendered by Dr. Moore to the veterinarians and the stock owners of the State and also to the State Commissioner of Agriculture are so well-known that the Trustees will feel assured of their support in presenting Director

Moore's requisition for the College to the favorable consideration of the Legislature.

(6) *The New York State College of Agriculture.* The dedication of the new buildings of the College of Agriculture made the year 1906–1907 a memorable one in the history of agricultural education in the State of New York. Accordingly in the Report for that year the whole subject was discussed at considerable length by the President (pp. 59–66) as well as by the Director (Appendix VIII). It was recognized that the age called for cultivated intelligence and scientific methods in all branches of agriculture. The agricultural condition of the State was described as well as the efforts which the College of Agriculture was making to improve that condition. The liberal appropriations made by the last legislature enable the College to continue and augment those efforts. Besides the regular fund of $150,000 for maintenance in the appropriation bill, the supply bill carried special appropriations of $30,000 for glass houses and $10,000 for extension work on farms and with farmers.

Like the great buildings opened last year these new facilities spell new opportunities and of course mean increased obligations and responsibilities. As the able and enthusiastic Director of the College says in his report, "Whatever the College has been able to accomplish in the past for the rural interests of the State, it ought now to be able greatly to extend its usefulness and influence."

Not counting graduates in Agriculture (who are under the jurisdiction of the University Faculty and not of the Faculty of Agriculture) there were in 1907–1908 registered in the College of Agriculture 610 students, of whom 206 were regularly enrolled in the four year course, 142 were special students and the rest attendants at the Winter School in Agriculture. The courses in the Winter School pursued by the young men and women who came from the farms to the University for three months of elementary work, embraced general agriculture, dairying, poultry husbandry, horticulture and home economics. The latter subject appealed especially to women. And of women twelve are regular students, ten special students, and twelve pupils in the winter courses. The number of students in all courses increases and will doubtless continue to increase in the College of Agriculture.

The great event of the year for the College of Agriculture was the purchase by the University of additional farm lands. An enlargement of the University farm was earnestly recommended, first, by Director Roberts and, since, by Director Bailey. The President strongly endorsed these recommendations, but the Trustees were not agreed that the time for action had arrived. The increase, however, in the number of students in the College of Agriculture, the erection by the State of large buildings for the use of the College, and the generous provision made by the State for its support, all combined, along with the continuously increasing inadequacy of the present farm, to convince the Trustees that additional lands were necessary. Local conditions were also favorable for purchase, and there developed a strong feeling that if lands were not secured during the year, it would be difficult to secure them hereafter at anything like the same prices. The matter was accordingly referred to a committee, consisting of Judge Blood, Attorney Van Cleef and Treasurer Williams, with instructions to purchase. The committee was, of course, given all proper discretion, and the result of their work merits high praise. They purchased farms from different owners, which, in combination with former holdings, gives the College of Agriculture 579 acres for farming purposes and the Veterinary College 100 acres for an experimental station for sick animals. In addition the University campus has been enlarged so that it now embraces 350 acres.

Now that the University has greatly enlarged its farms, it will be possible, if State funds are available, to add to the live stock of the College, which is needed as material both for demonstration to students and research by professors. New York State produces about one ninth of the hay and forage of the United States, and the animal industries of the State are of enormous value. This is a field, therefore, to which the instruction and investigation of the College should be peculiarly directed, and the State appropriation of $25,000 for barns has solved the problem of housing facilities as the purchase by the University of land has solved the problems of pastures and fodder.

The activities of the College of Agriculture continue to be maintained along the three well-marked lines of instruction to students who attend the College, extension work among the farmers of the State and their families as well as teachers in the schools, and investigation and experimentation both in the laboratories of the College and on selected farms throughout the State. The goal is an enlargement of agricultural knowledge, a better education for farmers, and scientific method applied to the organization of their industries.

For further details regarding the College of Agriculture the President refers to the Report of last year, already mentioned, and to the Director's report herewith published as Appendix VIII.

(7) *The College of Architecture.* The attendance has for the first time touched 100, which is just double the attendance of the year 1901–1902. It is curious that the increase since that date has been almost entirely in the alternate years, as the following figures show: fifty in 1901–1902, fifty-three in 1902–1903, sixty-five in 1903

1904, sixty-eight in 1904–1905, eighty-one in 1905–1906, eighty-two in 1906–1907, and 100 in 1907–1908. The same rhythmic variation appears in the numbers of graduates: fourteen in 1905, seven in 1906, fifteen in 1907, and eight in 1908. Of the 100 students enrolled, four were young women. In evidence of the high quality of work maintained by the students, the Director reports that in design they carried off "the major honors in such of the Beaux Arts competitions as their schedule permitted them to enter." Should the increase in attendance continue it will be necessary, in the interest of efficient instruction, for the first time to divide the classes into sections and consequently to provide additional teachers.

The College of Architecture now furnishes instruction in drawing to students in other Colleges. Director Martin has now reached the conclusion that it would be to the interest of these students themselves if they received this instruction in their own Colleges, not only because the standard required of architectural students is (and considering their curriculum must be) higher than that required of other students, but also because in those Colleges in which drawing is studied as a means to an end in scientific work, rather than as a medium for artistic expression, better results can be attained if that end is kept in view from the beginning. This opens once more, though in a new field, the large question of the interrelation of Colleges in the function of instruction and the need of securing the maximum efficiency without unnecessary duplication. The Colleges affected, however, are only the College of Arts and Sciences and the College of Agriculture, and the latter is already organized with a view to such differentiation of work.

The President discussed in the last Report the policy of prescribing an additional year of study in Arts for students in Architecture, making essentially a two year course in Arts and Sciences followed by a three year course in Architecture. The Faculty have formulated a five year course as an alternative to the present four year course which they desire to continue. Their action was reported to the Trustees, by whom it is still held under consideration.

Director Martin was absent on sabbatic leave during the last half of the year, his administrative duties being assumed and satisfactorily performed by Assistant Professor Phelps.

(8) *The College of Civil Engineering.* The attendance was 511, which is more than double the attendance five years ago. The figures for the five years are as follows: 252 in 1902–1903, 326 in 1903–1904, 385 in 1904–1905, 425 in 1905–1906, 466 in 1906–1907, 511 in 1907–1908. Of the new students entering in September, 1907, advanced standing was gained by twenty-two—by eight as sophomores, eleven as juniors and three as seniors.

Although Lincoln Hall is now occupied exclusively by the College of Civil Engineering, it is already inadequate to accommodate the College, and classes must be housed in other University buildings. Additional space is still needed, and cannot be provided elsewhere, for the testing laboratory, for the experimental work in concrete and reinforced concrete, and for larger lecture and reading rooms. The enlargement of Lincoln Hall by the extension of wings eastward to the east line of Goldwin Smith Hall offers a natural solution of all these problems,if only money were available to meet the cost of construction.

New courses have been provided, and taken by classes ranging from fourteen to sixty-five students in steel building construction, reinforced concrete construction, railroad operation and management, and railroad construction and maintenance. The growing importance of sanitary engineering has been recognized by the addition of two new courses. Strong as the department of hydraulics now is, it is greatly in need of development to meet the demands of the age and the prospects of the future. Water is destined from now on to play a great part in the economic development of the United States, for apart from its uses for domestic and sanitary purposes, it is hereafter to be used on a vast scale for power and for irrigation as well as for navigation. The maximum benefit to be got will be sought in the east from navigation and power and in the west from irrigation and power. For the new work to come in these vast fields there will be needed a type of engineer highly specialized in hydraulics.

After a careful study of the work of instruction in the College, Director Haskell recommends that it be arranged under six separate divisions, each under the supervision of a responsible head. These divisions are designated as (1) topographic and geodetic engineering, including all surveying, except railroad, as well as geodesy and astronomy, (2) applied mechanics and hydraulics, (3) railroad engineering, (4) bridge engineering, (5) municipal and sanitary engineering, and (6) miscellaneous, including drawing, descriptive geometry, etc. The event of the year in this College may be regarded as the appointment, to take charge of division 1, of Professor David A. Molitor (see p. 12 above), an engineer of wide experience and national reputation.

(9) *The Sibley College of Mechanical Engineering and Mechanic Arts.* The attendance was 1,127, which is nearly twice the attendance at the close of the century when the figures were 571. Since that date the attendance has been as follows: 661 in 1900–1901, 700 in 1901–1902, 801 in 1902–1903, 964 in 1903–1904, 1,060 in 1904–1905, 1,096 in 1905–1906, 1,081 in 1906–1907, and 1,127 in 1907–1908. Entrance requirements have in recent years been enforced

with extraordinary strictness. A college with more than a thousand students is exceedingly costly to conduct, and while the fame of Sibley College continues to attract increasing numbers of students it is greatly to be desired that endowments might be forthcoming to enable the institution to maintain its high standard of work and enhance the reputation it already enjoys.

The Director and Faculty are doing their part of the work with fidelity, ability and success. Improvements of one kind and another are being constantly made. The new course on the principles of manufacturing has proved useful and fruitful. Next year there is to be a better correlation of pattern-making with foundry work, and a consequent transference of the former subject to the second year accompanied by a removal of foundry and forge work from the second to the first. The association of drawing with machine design and the concentration during the first three years of the course of all the necessary fundamental training in these subjects is now complete; and the undergraduate in his fourth year is left free to elect more advanced work in design from among a number of special lines of work, as, for example, the design of steam turbines or of reciprocating steam engines or of railway rolling stock or of ships or of objects and appliances in the field of electrical engineering or other divisions of the subject. The new junior course in electrical laboratory work, given last year for the first time, has proved a very valuable addition to the Engineering curriculum. The facilities of the laboratory of experimental engineering have been notably increased, and in this connection the generosity of the York Manufacturing Company and the Babcock and Wilcox Company is acknowledged with grateful appreciation.

The present needs of Sibley College are presented by the Director so forcibly that it seems best to quote his language:

"Sibley College today has two pressing needs requiring considerable expenditure. First, is the need for a new building for housing the machine shop and the wood shop. In the present location, which is necessarily temporary, there is naturally a good deal of hesitation about installing machines or systems with an idea of permanence. This, however, is not the most important thing connected with the providing of a new shop building. Vacating the present building would render space available for the expansion of the experimental laboratory which is now the only crowded department of Sibley College. A shop building for the accommodation of the machine shop and the wood shop, of fireproof construction and with all necessary modern improvements, could be built and the transfer of apparatus could be made in addition for a sum not exceeding $50,000.

"The second need is for an annual appropriation for research. It is believed that it is very desirable for a technical school to have research work constantly under way because, first, it is thus doing its part in the making of additions to the data of engineering; secondly, because a laboratory of research is a most stimulating influence both to students and teachers. At the University of Wisconsin an annual income of $5,000 is available for equipment in purely mechanical engineering work. At the University of Illinois a laboratory of experimental research has been established and is maintained by the state. If an annual income for this purpose of $5,000 could be made available it would be possible, with our present equipment, to produce results that would be of great advantage to the engineering world and to Sibley College."

(10) *The Summer Session.* The Summer Session of 1908, in spite of the fact that Sage College and Cottage (where hundreds of summer students formerly lived) were closed for repairs, was the largest in the history of the University, and all members of the Faculty join in the most emphatic testimony as to the high quality of work done. The instruction was given by fourteen professors, twenty-five assistant professors, twenty-two instructors, and seventeen assistants, thirty of the thirty-nine teachers of professorial rank being members of the Faculty of Cornell University. To the loyal, eager, devoted and skillful labors of the gentlemen of the teaching staff Director Bristol attributes the marked success of the Session.

The number of students enrolled in the Summer Session was 841. In 1907 there were 715, in 1906 there were 642, and in 1905 there were 619. At this rate of increase the 1,000-mark will be reached in the next two or three years. Of the 841 students 173 held first degrees and twenty-six higher degrees. It is an encouraging circumstance that the number of graduates attending the Session is rapidly increasing; there were 130 in 1905 and in 1908 there were 199. Beside these 199 graduates there were enrolled 372 present undergraduates of Cornell and 107 former students, but not graduates, of other colleges. The Cornell undergraduates in 1907 numbered 288, and the Director reports that the rise of the figures to 372 in 1908 is due, not to any increase in the number of men who are making up deficiencies in work, but to a laudable desire on the part of undergraduates to avail themselves of the advantage of summer courses recently added to the curriculum. The number of teachers enrolled was 294, of whom thirty-two were engaged in teaching in colleges, twelve in normal schools, 147 in high schools, eighty-two in grammar or elementary schools, and eight in private schools, while thirteen were performing functions in the field of superintendence or supervision. These figures show, in comparison with last year's, a marked diminution in the number of teachers from elementary schools and an increase in the number of teachers from colleges and high schools, an indication that the work is appealing more and more to the strongest and most ambitious teachers in the higher grades of educational work. Along with this change—and as a part of it—there has been an increase in the number of men. The attendance also increased of persons classed formerly neither as students nor as teachers.

The Summer Session was intended originally for teachers. The curriculum, however, already embraces subjects far beyond the limits of the high school curriculum, as, for example, descriptive geometry, mechanics, machine design and reinforced concrete arch; and the Director is of the opinion that more subjects of this sort should be added to the programme. At the same time there is a demand for more advanced courses in the Arts and Sciences which might be taken by candidates for an advanced degree, but this matter must await the decision of the Faculty on the more pressing question of the acceptance of summer work in satisfaction of the requirements for advanced degrees, and especially the A.M., which is tending to become a pedagogic degree.

Mr. Arthur D. Dean, who was in charge of manual training in the Summer Session, has been appointed chief of the division of industrial education in the New York State Department of Education. He has done most successful work in organizing manual training as a part of the work of the Summer Session.

(11) *Sage College.* Most of the women of the University reside in Sage College, Sage Cottage, Alumnæ House and in two other houses specially reserved for the purpose. About ten seniors or older students roomed in Cascadilla building; and the rest lived either at home or with friends or in places approved by the Warden. Women in all houses now being under the jurisdiction of the Warden, the old distinctions between women in Sage and women in other houses are rapidly disappearing. And the women are organizing a self-governing association, with a general committee composed of representatives of all the houses to deal with important matters concerning all alike, and special house committees to settle the minor questions arising in their own houses severally.

Sage College and Sage Cottage are the property of the University. A system of automatic fire alarms and thermostats was installed during the year, and a night watchman appointed in September to patrol the corridors, so that, as the Warden reports, "protection against fire would now seem to be complete."

The great event of the year, however, was the alteration and radical improvement made in the interior of Sage College during the past summer. Hardwood floors were placed in all parts of the building, all hallways were refinished and fitted with steel ceilings, steel ceilings were also placed in all rooms where the plaster was loose, and all bedrooms and studies were recalcimined and all woodwork painted or varnished. The plumbing, too, was entirely overhauled and brought up to date, while additional toilet rooms were placed on the third floor and in the basement, and all toilet rooms (with the exception of one small one) were furnished with stationary hand wash basins. A new Worthington water-tube boiler was installed in the basement for supplying power to the kitchen and laundry, and also a new hot water boiler to supply the bath-rooms in the south and west wings.

Alterations in the building proper consisted of the conversion of two rooms on the first floor near the main entrance into waiting and reception halls, connected with each other and with the main halls by large archways, and the removal of the old porch dining room, which was replaced by a new dining room, double the size, connected with the main dining room by doorways cut through the old window spaces. The kitchen was entirely overhauled and by the removal of the dishwashing machinery to an addition built for that purpose, in which there were also provided additional servants' rooms, was so enlarged as to make possible separate meat and pastry kitchens, while considerable new equipment was installed looking to both convenience and efficiency, notably a large and thoroughly modern sanitary meat cold storage box, the gift of Trustee Boldt, through which have been passed water coils supplying the drinking faucets in the building with an abundance of ice water, and a second cold storage box, with separate apartments for milk and butter and for vegetables.

Finally, a contract has been let for a new passenger elevator of the most modern type with all modern safety appliances and this will be installed during the coming Christmas recess. The total cost of all these improvements was about $30,000.

The number of women enrolled in the University during the academic year from September to June was 415, of whom thirty-eight were in the Graduate Department, 313 in Arts and Sciences, one in Law, twenty-four in Medicine, thirty-four in Agriculture, one in Veterinary Medicine, and four in Architecture. There are no more diligent or conscientious students in the University; and as a consequence they make scarcely any problem for the Faculty or other authorities of the University except that of furnishing efficient instruction or competent guidance in investigation. At Cornell, however, as at some other universities to which women are admitted, there is an element among the undergraduates which does not regard their presence with any degree of favor. It is impossible for the Faculty to control that sentiment, but it is the duty of the Faculty, the Trustees and every officer of the University, so far as their official power and even their personal influence may go, to see that women enjoy without let or hindrance the same rights, privileges and immunities as other students of the University. Happily it is seldom that serious occasions arise which call for the exercise of this authority. It was, however, asserted during the year in a case of boyish impoliteness, which, though really rudeness, was found, on investigation, to have been intended only as an innocent practical joke. The instance, however, emphasizes the indispensable obligation of the young men in the University to treat the young women not only fairly and honorably but with the finest courtesy and chivalry. The universities in a democracy should be schools of manners and morals as well as of learning and science.

Miss Loomis, the Warden of Sage College, was absent from January to June on account of illness. Her health, however, has been re-established and she resumes her duties at the beginning of the next academic year. In welcoming her back to her post, the University community and especially the women students will cordially wish her success in her work and loyally and unitedly aid her in achieving it.

(12) *The Military Department.* The military department of the University, which is in charge of an officer of the United States Army, is inspected every year by an inspector detailed by the War Department. The report of the inspection in 1907, which was made by Captain George H. Shelton, General Staff, United States Army, concludes with the remark that "the work done at Cornell is, for this class of institution, of a high order and valuable to the University, the War Department and the Nation." During the year which has since elapsed the same standard of efficiency has been maintained in the department by Captain Barton. In response to his urgent appeals the Trustees had already made appropriations providing for the pay of his eleven assistants and free tuition for his twenty-two cadet officers, which had raised the cost of maintaining the department from $1,865 in 1904–1905 to $6,245 in 1907–1908. The change, though costly, was well worth the money, for it enabled Captain Barton to secure cadet officers who were thoroughly acquainted with their duties and who could, therefore, be relied on to turn out good companies as well as to command the respect of the students. Nor is this increase in efficiency in the corps of

cadets the only result that followed from the action of the Board of Trustees in increasing the appropriations to the department. That measure has added greatly to the attractiveness of the position of commandant and increased his usefulness, while on the other hand the improvement in the standing of the officers and in the efficiency of their work has reacted favorably upon the sentiment of the entire student body in regard to the subject of military drill.

There are three other improvements which the War Department, the inspecting officer and Captain Barton himself desire to have effected. One of them is the setting aside of an hour for drill, different from the afternoon period already allotted to the student body for recreation. The Faculty of the University is on record as favoring this change, and the hour recommended was twelve to one. Unfortunately, however, the congestion of the shops in Sibley College renders it impossible at the present time to arrange the schedule of University work so that all students could be free at that hour.

The other changes desired by the War Department have to do with the present practice of excusing certain students from military drill. First, students have been excused who come from preparatory schools in which military training was a part of the course, and, secondly, a considerable number of freshmen are excused for the purpose of taking athletics in lieu of military drill. The War Department, without dictating to the universities to which it details officers, recommends that every effort should be made to bring a larger number of men under military training and to extend that training through the more advanced courses. Captain Barton is in full accord with this ideal of the War Department, but at Cornell University the adoption of the recommendations of the War Department would result in making the corps of cadets of such size as to render it impossible to do anything with it in the present inadequate Armory of the University. A new and much larger Armory is, therefore, the first condition of further improvement of the military department at Cornell University.

It is hoped that the State of New York may provide such a building. There can be no doubt about the excellence of the work achieved by the military department of this University. Three army inspectors in succession have now answered affirmatively the question which appears in the army inspector's last report, "Has the course of inspection prescribed . . . been carried out?" And that Cornell University is also accomplishing the object of the War Department in maintaining such details at universities is now likewise a matter of official record. In a circular letter from the War Department to commandants, dated January 25, 1908, it was said that "the main object of the military instruction given at civil educational institutions having army officers as professors of military science and tactics should be to qualify students who enter the military departments of such institutions to be company officers of infantry volunteers or militia." That Cornell University is fulfilling the object sought by the Morrill Act as thus formulated by the War Department is not merely a matter of assertion but of official record. The records of the Spanish-American War show no less than sixty officers of volunteers who received their military training in the cadet corps of Cornell University. There are now seventeen officers of the regular army who are graduates of Cornell and a great many more who did not actually graduate but who were students here. The last class from civil life commissioned in the army contained four Cornell graduates—Charles L. Williams, '05, Chester J. Goodier, '07, Robert E. Vose, '03, and George Ruhlen, Jr., '07.

The last inspection of the cadet corps was made on the 11th of May, 1908, by Captain P. C. Harris of the General Staff. He reports that the requirements of the War Department as to the course of instruction have been complied with and that the instruction is of such extent and thoroughness as to qualify the average graduate for a commission as a lieutenant of volunteers, and his report concludes with the following words:

> "The work accomplished at Cornell University is of a high order, and it would be a mistake to make any radical change at this time. There has been in the last few years a steady improvement in the military department of this university, for which Captain Frank A. Barton, 3d U. S. Cavalry, Professor of Military Science and Tactics, deserves great credit. With the encouragement and support of the president, who is a firm believer in the value of military training for young men, he has succeeded in arousing the interest of the students and in removing to a large extent the prejudice which existed against the drills and military inspection."

The President desires cordially to endorse this official encomium on Captain Barton. He has infused a new spirit into the military department of Cornell University and brought it measurably up to the ideal entertained by the War Department and by the authorities of the University. From beginning to end his work at Cornell has been an unqualified success. His high patriotism, his zeal for the service, his devotion to his work, his practical gifts as an administrator, his skill and persistency in pushing reforms till everybody recognized they were indispensable, and the admirable courtesy and diplomacy which he combined with the disciplinarian's firmness and stern sense of duty, enabled him to raise the department to a markedly higher plane of efficiency and invest it with a sentiment of regard and popularity such as it had never before enjoyed. In leaving the University Captain Barton carries with him the admiration and affectionate regard both of the students and of his colleagues in the Faculty.

To fill the vacancy caused by the expiration of Captain Barton's appointment, the War Department on the application of the University detailed Captain Ervin L. Phillips (see p. 13), who reported for duty on September 25th.

THE LIBRARY

The University Library now contains over 350,000 (353,638) volumes and over 50,000 (53,000) pamphlets. Over 300,000 (307,334) volumes and all the pamphlets are housed in the general library building which the late Henry W. Sage erected for the University and endowed with $300,000 as a book fund. Most of the annual accessions to the Library, which last year numbered nearly 14,000 (13,937) volumes and 2,000 pamphlets, were purchased from the income of that fund. The gifts, however, were considerable, aggregating 3,646 volumes. The most important of the gifts as also of the purchases of the year are mentioned in the report of the Librarian (Appendix XV).

The establishment of a separate library in the upper story of Goldwin Smith Hall for the use of undergraduates in Arts was an important event of the year. The collection already numbers about 1,100 volumes, and must be greatly increased. It is to students in literature, history and philosophy what the laboratory is to students in science. The collection consists chiefly of additional copies of books already in the general library, which are used in undergraduate work in the humanities, and it contains in some cases many copies of the books most in demand in the larger classes. This arrangement now made in the interest of students in Arts had already been effected for students in other Colleges (Engineering, etc.) which have special library collections in their own buildings.

A still more noteworthy event was the extension of the privilege of drawing books from the general library for home use to all regularly matriculated students of the University. This privilege was at first confined to Faculty and graduate students, then it was extended to seniors and juniors, and now it is granted generally to all members of the University, whether students or teachers. With the exception of certain reserved collections, these successive acts of legislation have the effect of converting the library of reference to a circulating library. As a consequence its relation to the recently established circulating library must now be reconsidered. That the change does not necessarily involve the abandonment of that enterprise is obvious enough. For an incomparable advantage of the circulating library was that it brought together in a comparatively small compass the books which students might desire for general reading and encouraged the students, in Dr. Johnson's phrase, "to browse" in that collection—to see, handle and taste books at their leisure. And this free access to the shelves for choosing books for general reading has been greatly appreciated by the students; the figures in the Librarian's report show that nearly one fourth of all the books taken from the Library for home use were from this collection though it contained only about 3,500 volumes. And a still larger number of students used books from this collection in the room without taking them home. Such a collection, therefore, seems specially adapted to promote the "reading habit" among undergraduates, which teachers very generally declare the chief desideratum in collegiate education at the present time. The suitable accommodation of such a circulating library is a grave problem. No satisfactory solution can be found short of an enlargement of the Library building which in a few years, at the present rate of growth, will be full to overflowing, and when the enlargement comes, special provision should be made for the circulating library and also, if possible, for the Fiske collections.

THE INFIRMARY

The new Committee, consisting of Mr. C. D. Bostwick, chairman, Judge Blood and Professor Kerr, have now had charge of the Infirmary for a year. The chairman's report, which is brief and which covers completely the important events of the year, is as follows:

> "By reason of the action of the Board of Trustees at the time the present Infirmary Committee was appointed, in terminating the employment of the Infirmary Staff, the first act of the Committee was to secure a new Superintendent. Miss Harriet Sutherland formerly with St. Lukes Hospital, Utica, was appointed to the position and her administration has given satisfaction.
>
> "The exterior of the building has been repainted and necessary repairs made. Some new equipment was purchased, particularly copper instrument sterilizers for the surgery. Two useful and needed gifts were received from seniors in the University. A wheel chair from Mr. C. L. Bradley and a complete X-Ray machine with table and photographic outfit from Mr. C. B. Goodspeed.
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> "On the recommendation of this Committee the Trustees enacted that hereafter an Infirmary fee of $2.00 per term be charged to all students entitling them to ordinary care for not exceeding two weeks in one year. This provision apparently meets the approval of the student body and will I think be a satisfactory change.
>
> "During this year there have been among the students and in the city serious outbreaks of three contagious diseases, diphtheria, scarlet fever and measles. As the necessary isolation of such cases cannot be had at the Infirmary, these students were refused admittance. The patients were well taken care of at the Ithaca City Hospital and the Board of Health Emergency Hospital, but the urgent need of an isolation ward in connection with the Infirmary was impressed on all interested. Such a ward should have at least thirty beds and if built in keeping with the present building would probably cost, with equipment, between $40,000 and $50,000. Such a building I believe to be an urgent need of the University. I attach detailed list of diseases treated and financial statement."

Unhappily two students who were sick died at the Infirmary. One was Ernest C. A. Schaefer of Liverpool, New York, a junior in Mechanical Engineering, who had for years been a victim of chronic diabetis. Mr. Schaefer was a very diligent student and made an excellent record in his University work. The other was H. Douglas Fowler of Galveston, Texas, who had just registered as a freshman in

Mechanical Engineering, when he suddenly died of meningitis. Mr. Fowler was a young man of great promise, and his death coming with such suddenness and at the very beginning of the academic year cast a gloom over the entire University community.

There were 467 patients admitted during the year from July 1, 1907, to July 1, 1908, of whom 422 were cured, twenty-seven discharged as improved, ten transferred to other hospitals, while seven were not improved and, as already stated, two died. Of the cases treated 282 were medical, 148 surgical, and thirty-eight affections of the eye, ear and nose.

Even with an annual income of $5,000 on the endowment fund which Messrs. Dean Sage and William H. Sage so generously provided for the Infirmary at the time they presented it to the University, it was not quite self-supporting during the year. The balance on hand August 1, 1907, was $11,559.18 and the balance on August 1, 1908, was $11,292.57. The following table shows in detail the cost of conducting the Infirmary and the receipts from students since 1898:

Year	Expense	No. of Days Service	Cost per day per patient	Charge per day per patient	Cost over Receipts
1898–1899	$ 6,223.95	1712	$3.63	$1.53	$2.10
1899–1900	5.084.73	1729	2.94	1.49	1.45
1900–1901	5,581.30	2130	2.62	1.53	1.09
1901–1902	5,527.07	2268	2.44	1.55	.89
1902–1903	16,461.39	4563	3.61	2.85	.76
1903–1904	6,762.78	2517	2.68	1.45	1.23
1904–1905	6,878.86	2060	3.34	1.45	1.89
1905–1906	7,287.10	1996	3.65	1.58	2.07
1906–1907	7,072.50	2452	2.80	1.24	1.56
1907–1908	10,038.85	3141	3.19	1.45	1.74

Average daily attendance 1907–1908, 11.7.

The Infirmary fee of $2 per term hereafter to be charged to all students should, in spite of the increased cost of maintenance, make the Infirmary self-supporting and leave at least a portion of the income on the endowment fund available for the erection of a ward for contagious diseases in connection with the Infirmary. The not infrequent outbreaks of contagious diseases like diphtheria, scarlet fever and measles impressively remind the University authorities from time to time of the indispensable need of such an isolation ward for students in a city so small as Ithaca.

ENLARGEMENT OF THE CAMPUS

During the year the Trustees have purchased nearly 50 acres of land at a cost of $15,275 for the extension of the campus on the southeast. The campus, by resolution of the Trustees adopted in February, was enlarged so as to include the entire tract lying between Cascadilla and Fall Creek gorges from Stewart Avenue on the west to the Judd's Falls Road on the east; and the Executive Committee afterward pushed the southern boundary beyond Cascadilla Gorge to the E. C. & N. railway. The distance north and south is about five eighths of a mile and the distance east and west is about a mile; and the entire area (including the extension beyond Cascadilla gorge to the E. C. & N. railway track) is 350 acres.

Twenty or twenty-five years ago the buildings of the University were grouped mainly about Central Avenue. Then came the development of East Avenue for the houses of professors. On the east side of East Avenue were located in 1895 the buildings of the New York State Veterinary College with the object of removing them from the campus while still rendering them visible from it. Then at the urgent request of the President, the Trustees spent $100,000 in the purchase of the vacant field of seventeen acres which separated on the west the University from the built-up portions of the city, thus shifting the western boundary of the University estate to Stewart Avenue. In the last few years the building of Stimson Hall, Goldwin Smith Hall and Rockefeller Hall have brought East Avenue into the heart of the campus; and the grant of 57 acres east of Garden Avenue for a playground and athletic field and the location immediately north of it of the buildings of the College of Agriculture, once more pushed the centre of gravity of the University farther to the east. Then it was felt as never before that the University should own the strip of land lying between the southern boundary of the playground and Cascadilla Creek; and the purchase mentioned above not only accomplished that object but secured also additional land on the other side of the stream. This insures the preservation of the whole stretch of Cascadilla gorge from the western limit of the campus eastward to Judd's Falls, while the purchase of the Blair farm for the College of Agriculture also protects the gorge a long way above those Falls.

The Brooklyn alumni have raised money to make the beauty and glory of Fall Creek gorge more accessible to students from the campus, and the work is in charge of Professor Rowlee, the intelligent and sympathetic Superintendent of Grounds. Professor Rowlee's tentative ideas in regard to the development of the enlarged campus are set forth in the following extract from his report:

> "The approaches to the University from the west or city side are fixed and there is little likelihood, as there is little necessity, for change in these approaches. The approaches from the east consist (1) of the Fall Creek road coming in from Forest Home and beyond; and (2) of the Dryden road coming in along Cascadilla Creek. When these are improved, as presumably they will be by the State, under the good roads law, slight deviation in location may be made to improve the grades, but otherwise they are fixed approaches, and must become in future years the main entrances to the University

from the east. Recently Mr. Manning has pointed out that it would be of advantage to the University to lay out, primarily for its own use, drives along the top of the bluffs, both on the Fall Creek and Cascadilla sides of the campus, thereby providing access to the farming land of the University without having it cut up by cross roads. This seems to the writer a very excellent suggestion, and in accordance with it he hopes that the Agricultural College will find it practicable to lay its drive easterly from the Agricultural College buildings along the top of the bluff north of the Carnegie Filter Plant, thence out to the site for the new barns rather than to bring their road down near the new athletic field and in front of the University buildings. Also the plan of Mr. Manning would apply very well indeed to the Cascadilla system whereby a road could be laid along the top of the bluffs near Kite hill and along the southerly edge of the athletic field out to the easterly section of the farms. Under this plan the pasture field recently acquired from Mr. Cornell and proposed by him as an arboretum, could be utilized as a buffer to prevent promiscuous flocking of crowds into the athletic field from the south side. This general system of roads already largely in use but supplemented in the way indicated by Mr. Manning, and outlined above, would form what he described as the outlying general road system to approach the University from the east, and would serve in future as the main lines of travel from the University grounds. Our avenues, Stewart, West, Central, East and Garden Avenues, will serve as secondary lines of travel and they must be maintained in such condition as to accommodate heavy traffic to the University buildings. Finally, it is the writer's opinion that the cross lines or drives by which communication is carried between the last mentioned avenues might well be secured by narrow drives that would serve at the same time for walks. The general contour of the campus does not lend itself to the building of avenues east and west. The only place where it is practicable would be from the front of the Veterinary College westerly, where Cornell Avenue has been proposed by several landscape artists, and even in this place it is the writer's opinion that a fourteen foot driveway walk, paved so as to also serve as a walk, will serve all the purposes equally well."

FINANCES

Excluding the Medical College in New York City, the productive funds of the University amounted on August 1, 1908, to $8,628,370.31. The corresponding figures for August 1, 1907, were $8,550,916.84. The productive funds are invested as follows: In municipal bonds, $1,419,400; in State of New York scrip, $688,576.12; in foreign government bonds, $386,280; in national bank stock, $73,000; in steam railroad bonds, $1,414,100; in steam rail-

road equipment notes, $405,000; in traction bonds, $784,500; in miscellaneous corporation bonds, $1,331,500; in stock other than national bank, $253,100; in loans on collateral, $164,240; in real estate mortgages, $1,324,217.66; in land contracts, $103,525.54; in real estate, $104,085.38; in special deposits, $26,983.90; in advances, $144,799.33; in cash $5,062.38. The most marked changes in these investments during the year is an increase in steam railroad bonds from $1,019,500 to $1,414,100, and a decrease in real estate mortgages from $1,515,538.48 to $1,324,217.66.

The rate of interest upon invested funds (including cash) actually received during the past year averaged five per cent. This rate was credited on special funds, the five per cent for the surplus or insurance account being deducted only from the general university funds, on which the rate credited was 4.83 per cent.

The Treasurer's Report shows that there were sold or paid off during the year to August 1, 1908, bonds, notes, stocks, etc. amounting to $830,255.42. During the same period purchases were made of bonds, notes, stocks, etc., as follows:

Florida East Coast Ry. Co., Col. Tr. 6% Bds.	$	30,000 00
Reading Co., 1st Pfd. 4% Stock		15,000 00
Ithaca Gas Light Co., 5% Bonds		100,000 00
Great Northern Ry. Co., Pfd. 7% Stock		10,000 00
Central Leather Co., 1st Lien 5% Bonds		20,000 00
U. S. Steel Corp., Sinking Fund 5% Bonds		75,000 00
N. Y. Central & H. R. R. R. Co., Stock		20,000 00
Delaware & Hudson Co., Con. 4% Bonds		50,000 00
Pennsylvania R. R. Co., Con 3½% Bonds		25,000 00
N. Y., N. H. & Hartford Co., Stock		20,000 00
Union Pacific R. R. Co., Con., 4% Bonds		65,000 00
Southern Pacific R. R. Co., 1st Rfdg. 4% Bds		25,000 00
St. Louis, Iron Mt. & Southern Gen'l 5% Bds		40,000 00
Lake Shore & Mich. So. Gen'l. Con. 4% Bds		10,000 00
Chesapeake & Ohio 1st Con. 5% Bonds		10,000 00
N. Y., N. H. & Hartford 6% Con. Deb		6,600 00
New York Central Lines 5% Equip. Notes		25,000 00
Green Bay Gas & Elec. Co., 1st & Rfd. 5% Bds.		9,000 00
Wabash R. R. Co., 4½% Equip. Notes		30,000 00

First National Bank Ithaca, Stock	$	10,000 00
Butte Electric & Power Co., 5% Bonds		21,000 00
Chicago, St. Paul & Minn. Ry. Co., 1st 6% Bds.		12,000 00
Missouri, Kansas & Texas of Texas 1st 5% Bds		25,000 00
Pacific Light & Power Co., 1st 5% Bonds		25,000 00
Missouri, Kansas & Oklahoma 1st 5% Bonds		10,000 00
Missouri, Kansas & Eastern 1st 5% Bonds		25,000 00
Interborough Rapid Tran. Co., Con. 6% Notes		50,000 00
New York and Jersey R. R. Co., 1st 5% Bonds		25,000 00
Nassau Light & Power Co., 1st 5% Bonds		25,000 00
Pennsylvania R. R. Co., Conv. 4% Bonds		1,000 00
Chicago, Burlington & Quincy Gen'l 4% Bds		50,000 00
Knickerbocker Trust Co., Stock		5,000 00
Chicago Railways Co., 1st 5% Bonds		50,000 00
Central Coal & Coke Co., Gen'l 6% Bonds		20,000 00
Missouri Pacific Ry. Co., Con. 1st 6% Bonds		10,000 00
	$	946,600 00
Sundry Bonds & Mortgages		49,500 00
Western Land Contracts—Sales during year		7,063 65
Increase Campus Cottage Account		1,545 24
	$	1,007,708 89

Among the donations received during the year were $298.01 from the Briar Cliff School of Agriculture, $200 from the American Peony Society, $423.40 from the students for the Chi Psi memorial window in Sage Chapel, $841.73 from Mr. C. G. Goodspeed for an X-Ray apparatus, $78,122.11 from Mrs. Nancy G. Howe for the student loan fund, $8,000 from the York Manufacturing Company for an ice plant for Sibley College, $4,000 from Professor W. D. Bancroft for equipment in the laboratory of physical chemistry, and $100 from the Brooklyn Alumni for improvements in the Fall Creek Gorge.

The unlimited munificence of Colonel Payne towards the Medical College in New York City has been exhibited in the same generosity as during the preceding years of the decade since the College has been established.

The revenues and expenditures of the University for the year 1907-1908 are exhibited in the following condensed statement taken from the Treasurer's report:

CONDENSED AND COMBINED INCOME STATEMENT

	University at Ithaca	University at New York	State Veterinary College	State Agr. College	Total
Tuition	$ 290,373 64	$ 24,410 00	$ 1,122 50		$ 315,906 14
Summer Session	20,200 00				20,200 00
Laboratory and other fees	73,925 79	13,528 33	2,309 60	10,165 59	99,929 31
Total from Students	384,499 43	37,938 33	3,432 10	10,165 59	436,035 45
From gen'l invested funds	409,354 87	8,586 06			417,940 93
From special invested funds	10,894 88				10,894 88
Sage College and Cottage	13,842 75				13,842 75
Rents of Buildings and Cottages	8,652 33		80 00		8,732 33
Infirmary	4,772 24				4,772 24
From U. S. or State of N. Y.	30,000 00		30,000 00	150,000 00	210,000 00
Agr. Exp. Sta.	22,334 84				22,334 84
Miscellaneous	632 81	141,128 47		6,815 10	148,576 38
Departmental (not from Students)	2,318 48	3,959 64	1,516 50	63,501 19	71,295 81
Unusual Items	5,492 43	2,031 54			7,523 97
Net Transfer from Surplus	4,549 01				4,549 01
	$ 897,344 07	$ 193,644 04	$ 35,028 60	$ 230,481 88	$ 1,356,498 59

CONDENSED AND COMBINED EXPENSE STATEMENT

	Ithaca	New York	Veterinary	Agriculture	Total
Salaries	$ 443,880 06	$ 143,959 09	$ 23,746 89	$ 63,418 74	$ 675,004 78
Departments	107,955 11	39,095 60	5,472 06	118,390 49	270,913 26
General Exp.	97,464 05	24,558 09	1,389 08	39,348 83	162,760 05
Fellowships, Scholarships and Loans	32,583 21	500 00			33,083 21
Sage College and Cottage	12,591 73				12,591 73
Summer Session	20,024 63				20,024 63
Agr. Exp. Sta.	21,697 46				21,697 46
Library	41,386 38				41,386 38
New Buildings	59,746 44				59,746 44
Extraordinary Repairs	29,321 98				29,321 98
Income transferred to Principal	10,894 88				10,894 88
Mrs. Fiske Memorial	7,387 63				7,387 63
Miscellaneous	17,276 12		204 63	5,809 62	23,290 37
Real Estate	20,275 00				20,275 00
	$ 922,484 68	$ 208,112 78	$ 30,812 66	$ 226,967 68	$1,388,377 80

These tables call for little explanation. It will be observed that the item of $10,894.88 appearing in the statement of income as derived from "special invested funds" is balanced by the same amount in the statement of expenses as "income transferred to principal." Of the $59,746.44 spent on new buildings, $50,000 was spent on Goldwin Smith Hall and $9,746.44 in completing Rockefeller Hall. The item of $29,321.98 for "extraordinary repairs" is only about half of the corresponding item in last year's report. It is made up of the following charges: converting old dynamo laboratory into the University repair shop, $2,436; relaying steam mains in concrete conduits, $10,095.05; changes in Morrill Hall, $7,071.75; fitting the former archæological museum in McGraw Hall for use of geological department, $7,044.01; changing part of the first and second floors of White Hall to accommodate the mathematical department, $1,210.96; changes in Lincoln Hall, $673.28; and completing changes in stacks in Library basement $790.93.

The expenditure of $20,275 for real estate was incurred in the purchase of a part of the Curran farm and the Dwyer Mill property adjoining Cascadilla Gorge, which were secured at a combined cost of $15,275 and are intended as an enlargement of the campus, and also of the Ellis-Brown farm, which was purchased at a cost of $5,000 for the use of the State Veterinary College. The "miscellaneous expenditures" aggregating $17,276.12 include annuities paid under the will of Willard Fiske and others, $5,475; motor lawn mower, $1,253.76; Garden Avenue construction, $1,972.05; house for fire apparatus and hook and ladder truck, $2,747.24; Beebe Dam alteration, $2,604.08; Ten Year Book, $900; Professor Thurston Memorial, collected by subscription for the purpose, $1,590.68.

The appropriations made to departments aggregate $107,955.11. These appropriations are used for the purchase of apparatus, materials and facilities for instruction and research. A considerable portion of this outlay is repaid in the form of student fees, the chemical department alone turning into the treasury last year the sum of $22,782.79 from this source. The item of $97,464.05 for "general expenses" embraced a variety of objects, of which the most important are the following: care of buildings, $9,850; care of grounds, $6,500; electric service, $6,067.53; fuel, $14,904.95; heating labor, $2,896.20; repairs, $16,217.70; water works, $1,851.62; Infirmary, $10,038.85; printing and stationery, $5,000; Register, $4,500; Sage Chapel sermons, $3,300; Arts and Sciences, announcements and office, $975.69; attorney's fees and expenses, $2,000; advertising and lectures, $600; insurance, $535.06; reading entrance examination papers, $500; Sage Chapel expense, $686.60; contingent expenses (miscellaneous items), $10,783.75.

It may be added in this connection that apart from the lands mentioned in the preceding paragraph the University purchased during the year other farm lands to the value of $28,457.67 for the use of the State College of Agriculture. These, however, were not charged to expense for the current year, but were carried in the capital account as an advance to be extinguished by the annual appropriation which the University makes from its own treasury to the State College of Agriculture.

As the preceding table shows, the additional real estate which was charged to current expense amounts to $20,275. But for this purchase of real estate the accumulated deficit of the University would have been diminished by about $8,000. As it is, however, that deficit has been increased from $86,260.06 on August 1, 1907, to $98,454.79 on August 1, 1908. Of this accumulated deficit it will be recalled that $72,645.08 is an inheritance from the disastrous epidemic year of 1903.

The inventoried value of the University grounds and buildings is $4,263,405.07, of which the buildings of the State Veterinary College represent $135,000, the buildings of the State College of Agriculture $275,000, and the buildings of the Medical College in New York City $1,045,000. In this aggregate of $4,263,405.07 for real estate the value of the campus and adjoining lands of the University is fixed at $260,627.25. The most costly building on the campus is the Goldwin Smith Hall, which cost $353,550.25, then the Library building, which cost $296,020.90, next Rockefeller Hall, which cost $274,494.01, next Sibley College, which cost $218,361.56, and next Sage College, which cost $210,262.15 (all without equipment); there is no other building which cost over $200,000.

The equipment of the University is inventoried at $1,826,114.50, of which $28,793.52 represents the equipment of the State Veterinary College, $86,419.81 that of the State College of Agriculture, and $63,443.90 that of the Medical College in New York City.

NEEDS

The needs of the University have already been mentioned in connection with the different topics embraced in this Report. First and foremost let it be repeated, however, that an endowment for the augmentation of the present low salaries of professors and instructors, who are the vital and energizing soul of any university, is the greatest need of Cornell University, and next to it comes the need of a system of residential halls and commons for the students. After these in order of importance, though equally urgent for the conduct of the work of the University, must be mentioned the need of a general assembly hall capable of accommodating the entire student body. A new and greatly enlarged armory, a new laboratory for veterinary clinics, a new testing and experimental laboratory in civil engineering, new machine shops in mechanical engineering, and an enlargement of the chemical laboratory, if not an entirely new establishment. To these should be added provisions for the endowment of research and investigation in the fields of physical science and humane culture.

The great increase in the number of students taking work in chemistry has created serious embarrassment. Students desirous of electing the work this year were in some cases excluded from the laboratory for the reason that it was already overcrowded and if the attendance of students in the University increases in 1908–1909, an appreciable number of them may find it impossible to secure instruction in chemistry, even though that subject be part of their prescribed curriculum, as it is, for example, in Agriculture and Engineering and to some extent in Arts also. The one effective remedy is a new building for the department. Morse Hall, which is now devoted to chemistry, would then be available for the relief of the Engineering Colleges. A new chemical laboratory entirely adequate for the purpose would cost from $300,000 to $400,000. The site for it is undoubtedly the area north of Reservoir Avenue and east of East Avenue, at the centre of which stands the house now occupied by the President of the University.

To men and women of wealth who seek investments for their surplus capital which shall further the highest ends of civilization, and to the people and legislature of the State of New York who are already so deeply committed to the support of the work which Cornell University is endeavoring to do for the intellectual and scholastic interests of the State, the President earnestly appeals for aid to enable the University to continue, enlarge and improve its work in response to the increasing needs and the growing demands of the new century and the rising generation.

JACOB GOULD SCHURMAN,
President.

APPENDIX I

CHANGES IN THE STAFF OF INSTRUCTION

The following new appointments were made during the year 1907–1908:

C. A. Martin, Director of the College of Architecture, February 22, 1908.
A. Hayes, Jr., Professor of Law, October 26, 1907.
J. L. Stone, Professor of Farm Practice, October 26, 1907.
J. E. Rice, Professor of Poultry Husbandry, October 26, 1907.
M. W. Sampson, Acting Professor of English Literature, Second Term, December 18, 1907.
A. L. Andrews, President's Secretary and University Publisher, October 2, 1907.
B. F. Kingsbury, Secretary of the Ithaca Division of the Medical College, Second Term, January 14, 1908.
A. C. Phelps, Secretary in charge of the College of Architecture, Second Term, February 4, 1908.
C. A. Publow and A. R. Mann, Assistant Professors of Dairy Industry, February 22, 1908.
E. W. Rettger, A. C. Irwin, W. E. Piper, R. G. Marvin, J. S. Staudt, L. V. Edwards, D. Moomaw, J. V. Howe, H. E. Chandler, L. A. Lawrence, F. D. Sheffield, P. H. Underwood, J. C. McCurdy, S. B. Lilly, S. L. Chaffee and W. Neilson, Instructors in Civil Engineering, October 2, 1907.
F. H. Dunbar and W. D. Kendrick, Instructors in Experimental Engineering, October 2, 1907.
M. Ventura, Instructor in Romance Languages, October 2, 1907.
H. W. Redfield and G. E. F. Lundell, Instructors in Chemistry, October 2, 1907.
W. A. Downes, Instructor in Surgery, October 2, 1907.
E. R. Minns, Assistant Farm Manager and Instructor in Farm Practice, October 29, 1907.
H. B. Brown, Instructor in Botany, February 4, 1908.
S. Milbank, Instructor in Therapeutics, February 4, 1908.

G. R. McDermott, Jr., Instructor in Power Engineering, February 18, 1908.
F. Rose, Lecturer on Home Economics, October 2, 1908.
E. F. Rathjen and D. S. Pratt, Assistants in Chemistry, October 2, 1907.
A. C. Weed, Assistant in Neurology and Vertebrate Zoology, October 2, 1907.
J. B. Hill and E. J. Petry, Assistants in Botany, October 2, 1907.
L. N. Case and A. G. Hall, Demonstrators of Comparative Veterinary Anatomy, October 2, 1907.
E. D. Dean, Assistant in Histology and Embryology, October 2, 1907.
W. H. Shideler and R. D. Schrock, Assistants in Physiology and Pharmacology, October 2, 1907.
E. Taylor, Assistant in Histology, October 2, 1907.
J. B. Gore, Assistant in the Pathology and Histology of the Nervous System, October 2, 1907.
J. H. Richards, Assistant in Clinical Pathology, October 2, 1907.
F. M. Paul, Demonstrator of Anatomy, October 2, 1907.
L. C. Davie, Assistant in Veterinary Anatomy, October 15, 1907.
G. W. Tailby, Jr., Stockman and Instructor in Animal Husbandry, October 15, 1907.
W. G. Krum, Superintendent in the Poultry Department, October 15, 1907.
C. Nixon, Assistant in Poultry Husbandry, October 15, 1907.
H. J. Moore, Gardener in the Horticultural Department, October 15, 1907.
J. R. Pawling, Assistant in Physiology and Pharmacology, October 15, 1907, transferred to Department of Histology and Embryology, February 4, 1908.
G. F. Rogalsky, Assistant in Modern European History, October 15, 1907.
E. J. Bailey and A. W. Craver, Assistants in English, October 15, 1907.
C. D. Cass, Mechanician in the College of Civil Engineering, October 15, 1907.
R. Ford, E. E. Bragg and R. P. Anderson, Assistants in Chemistry, October 29, 1907.
B. S. Bell, Assistant in Economics, October 29, 1907.
L. Hooper, Assistant in the Wood Shop, October 29, 1907.
E. S. Savage, Assistant in Animal Husbandry, October 29, 1907.

M. B. Cummings, Assistant in Horticulture, October 29, 1907.
R. A. Cook, Assistant in Physiology, November 5, 1907.
I. Perrine, Laboratory Assistant in Physical Geography, November 12, 1907, and Assistant in Geology, Second Term, February 4, 1908.
T. W. B. Welsh, Assistant in Chemistry, November 26, 1907.
C. A. Publow, Assistant in Cheese Making, Winter Course, November 26, 1907.
B. W. Somers, Assistant in the Poultry Husbandry Department, November 26, 1907.
S. H. Perky, Research Assistant in Rural Economy, December 30, 1907.
W. B. White, Assistant in Chemistry, January 14, 1908.
W. Wilson, Assistant in Pharmacology, January 14, 1908.
L. Knudson, Assistant in Plant Physiology, January 14, 1908.
E. H. Nichols, B. J. Lemon and H. N. Frear, Assistants in Chemistry, February 4, 1908.
J. W. Wells, Assistant in Physical Culture, February 4, 1908.
W. M. Baldwin, Assistant in Histology and Embryology, February 4, 1908.
J. H. Scott, Assistant in Chemistry, February 10, 1908.
D. Miller, Assistant in Chemistry, Feburary 18, 1908.
W. E. Godfrey and H. P. Gage, Assistants in Physics, March 17, 1908.
E. A. Reinoso and A. H. Rahe, Assistants in Pathological Chemistry, March 17, 1908.
H. R. Muller, Assistant in Neurology and Vertebrate Zoology, April 14, 1908.
S. P. Beebe, Assistant in Experimental Pathology, April 14, 1908.

SUMMER SESSION, 1908

L. A. Bacon, Supervisor of Manual Training, Indianapolis.
W. W. Clendenin, High School Teacher in Geography, New York City.
L. A. Darling, Assistant Professor of Machine Design.
H. Davidsen, Instructor in German.
T. G. Delbridge, Instructor in Chemistry.
W. J. Fisher, Instructor in Physics.
R. C. Gibbs, Instructor in Physics.
B. N. Howe, Assistant in Machine Shop.
L. S. Hawkins, Assistant in Botany.

J. P. Jensen, Assistant in Zoology.
C. H. Ibershoff, Instructor in German.
G. E. F. Lundell, Instructor in Chemistry.
P. R. Mann, Teacher of Biology.
J. L. Meriam, Professor of Education, University of Missouri, Columbia.
W. H. Pyle, Assistant in Psychology.
I. Perrine, Instructor in Physical Geography.
B. A. Place, Assistant in Biology.
F. K. Richtmyer, Instructor in Physics.
M. W. Sampson, Professor of English.
R. E. Seamon, Assistant in Wood Shop.
H. A. Sill, Assistant Professor of History.
J. W. Turrentine, Assistant in Chemistry.
P. H. Underwood, Instructor in Civil Engineering.
J. H. VanSickle, Superintendent of Instruction, Baltimore.
J. E. Vanderhoef, Foreman in Manual Training Department.
O. D. VonEngeln, Instructor in Geography.
C. W. Waggoner, Assistant in Physics.
W. M. Wilson, Instructor in Meteorology.
J. A. Woodburn, Professor of History and Political Science, Indiana University, Bloomington.

The following appointments were made up to and including July 7th, 1908, to take effect at the beginning of the academic year 1908–1909:

V. A. Moore, Director of the New York State Veterinary College, February 22, 1908.
C. H. Hull, Dean of the Faculty of Arts and Sciences, April 14, 1908.
G. E. Woodberry, Acting Professor of English Literature (to the Christmas recess), February 22, 1908.
B. F. Kingsbury, Professor of Histology and Embryology, February 22, 1908.
W. A. Hammond, Sage Professor of Ancient Philosophy, February 22, 1908.
R. A. Hatcher, Professor of Pharmacology and Materia Medica, February 22, 1908.
E. L. Phillips, Professor of Military Science and Tactics, March 17, 1908.
H. N. Ogden, Professor of Sanitary Engineering, June 18, 1908.

V. Karapetoff, Professor of Experimental Engineering with special reference to Electrical Engineering, June 18, 1908.

D. A. Molitor, Professor of Topographic and Geodetic Engineering, June 18, 1908.

J. E. Trevor, Professor of Thermodynamics, June 18, 1908.

S. Simpson, Professor of Physiology, June 18, 1908.

D. H. Udall, Acting Professor of the Principles and Practice of Veterinary Medicine, June 18, 1908.

J. Law, Professor of the Principles and Practice of Veterinary Medicine, Emeritus, June 18, 1908.

S. H. Gage, Professor of Histology and Embryology, Emeritus, June 18, 1908.

J. P. Harris, Secretary of the University and University Publisher, May, 1908.

C. L. Durham, Secretary of the Administrative Board in charge of Freshmen and Sophomores in the College of Arts and Sciences, May 12, 1908.

S. H. Burnett, Assistant Professor of Comparative Veterinary Pathology, May 12, 1908.

W. M. Sawdon, Assistant Professor of Mechanical Engineering, May 26, 1908.

W. S. Ford, Assistant Professor of Electrical Engineering, May 26, 1908.

S. L. Boothroyd, Assistant Professor of Topographic and Geodetic Engineering, May 26, 1908.

E. W. Rettger, S. G. George and C. L. Walker, Assistant Professors of Applied Mechanics, May 26, 1908.

K. B. Turner, Assistant Professor of Hydraulics, May 26, 1908.

C. D. Albert, Assistant Professor of Machine Design, May 26, 1908.

J. A. Bizzell, Assistant Professor of Soil Investigation in the Federal Experiment Station, June 2, 1908.

P. J. White, Assistant Professor of Farm Crops, June 2, 1908.

C. A. Rogers, Assistant Professor of Poultry Husbandry, June 2, 1908.

J. C. Johnston, Assistant Professor of Dermatology, June 17, 1908.

O. H. Schultze, Assistant Professor of Pathological Anatomy, June 18, 1908.

J. S. Ferguson, Assistant Professor of Histology, June 18, 1908.

W. J. Elser, Assistant Professor of Bacteriology, June 18, 1908.

A. Hunter, Assistant Professor of Biochemistry, June 18, 1908.

C. F. Tucker Brooke, Instructor in English (from January 1, 1909), May 21, 1908.
F. H. Hankins, Instructor in Political Economy and Statistics, May 21, 1908.
F. A. Molby, G. W. Nasmyth, A. A. Somerville and O. Tugman, Instructors in Physics, May 21, 1908.
F. H. Shetterly, Instructor in Chemistry, May 21, 1908.
C. A. Stewart, Instructor in Geology, May 21, 1908.
J. P. Schaeffer, Instructor in Medical Anatomy, May 21, 1908.
W. A. Hilton, Instructor in Histology and Embryology, May 21, 1908.
R. E. Backus, Instructor in Architecture, May 21, 1908.
W. C. Capron, Instructor in Machine Design, May 21, 1908.
G. D. Conlee, Instructor in Experimental Engineering, May 21, 1908.
M. C. Ernsberger, Instructor in Power Engineering, May 21, 1908.
W. L. Head, Foreman of Forge Shop, May 21, 1908.
J. N. Frost, Instructor in Clinical Veterinary Surgery, May 21, 1908.
A. H. Wright, Instructor in Neurology and Vertebrate Zoology, May 26, 1908.
I. Perrine, Instructor in Geology (Second Term), May 26, 1908.
L. Knudson, Instructor in Plant Physiology, June 2, 1908.
D. Reddick, Instructor in Plant Pathology, June 2, 1908.
G. A. Crabb, Instructor in Soils, June 2, 1908.
L. D. Batchelor, Instructor in Horticulture, June 2, 1908.
E. S. Savage, Instructor in Animal Husbandry, June 2, 1908.
J. Bauer, Instructor in Economics, June 9, 1908.
W. T. Spivey, Instructor in Civil Engineering, June 9, 1908.
M. Warren, Instructor in Clinical Pathology, June 17, 1908.
W. D. Tyrrell, Clinical Instructor in Pediatrics, June 17, 1908.
E. Taylor, Instructor in Histology, June 17, 1908.
C. R. Stockard, Instructor in Comparative Morphology, June 17, 1908.
L. Jaches, Instructor in Microphotography, June 17, 1908.
P. A. Shaffer, Instructor in Experimental Pathology, June 17, 1908.
A. S. Armstrong, Clinical Instructor in Surgery, June 17, 1908.
F. R. Holbrook, Clinical Instructor in Surgery, June 17, 1908.
A. E. Chase, Instructor in Materia Medica, June 17, 1908.
R. Matthews and A. G. Kessler, Instructors in Power Engineering, July 7, 1908.
M. L. Lovell, Instructor in Experimental Engineering, July 7, 1908.
G. W. Lewis and J. F. Stevens, Instructors in Machine Design, July 7, 1908.

C. F. Clark, Instructor in Plant Breeding, July 7, 1908.
F. C. Church, Assistant in Mediæval History, May 21, 1908.
F. A. Cleveland, Assistant in Modern European History, May 21, 1908.
H. W. Martin, Assistant in American History, May 21, 1908.
J. G. Lapp, Assistant in Politics, May 21, 1908.
T. G. Durkan, C. W. Parker and J. R. Turner, Assistants in Economics, May 21, 1908.
H. Fitzpatrick and W. Moore, Assistants in Botany, May 21, 1908.
D. W. Hallock, Assistant in Physical Geography, May 21, 1908.
A. S. Galadjikian, Assistant in Physics, May 21, 1908.
L. Pumpelly, M. E. Holmes and A. E. Houlehan, Assistants in Chemistry, May 21, 1908.
H. R. Standiford, C. W. Fitch, C. A. Lyerly, Jr., C. E. Chase, B. B. Ramey and F. S. Marlow, Assistants in Military Science and Tactics, May 21, 1908.
L. Richardson and J. E. Cuff, Assistants in Physical Culture, May 21, 1908.
E. A. Almgren, Medical Examiner, Sage College Gymnasium, May 21, 1908.
C. H. Waters, Assistant in Histology and Embryology, May 21, 1908.
G. D. Gates, Assistant in Machine Design, May 21, 1908.
I. Buchanan and C. J. Miller, Demonstrators in Veterinary Anatomy, May 21, 1908.
F. S. Wood and F. E. McClelland, Demonstrators in Veterinary Physiology and Pharmacology, May 21, 1908.
L. Haseman, Assistant in Entomology, June 2, 1908.
M. F. Barrus, Assistant in Plant Pathology, June 2, 1908.
A. J. Lotka, F. R. Nitchie and F. R. Perrine, Assistants in Physics, June 17, 1908.
E. Eliot, Lecturer on Surgery, June 17, 1908.
C. G. Burdick, W. F. Burrows and C. E. Farr, Assistants in Anatomy, June 17, 1908.
E. Hand, Clinical Assistant in Medicine, June 17, 1908.
M. A. Lane, Assistant in Histology and Embryology, July 7, 1908.
S. C. Hatch, Assistant in Machine Shop, July 7, 1908.
R. L. Cochran, Assistant in Machine Design, July 7, 1908.
E. Sunderville, Assistant in Veterinary Anatomy, July 7, 1908.
H. O. Taylor, Assistant in Physics, July 7, 1908.
L. J. Cross, Assistant in Agricultural Chemistry, July 7, 1908.

M. M. McCool, Assistant in Plant Physiology, July 7, 1908.

H. H. Love, E. P. Humbert, A. W. Gilbert and F. J. Pritchard, Assistants in Plant Breeding in the Federal Experiment Station, July 7, 1908.

H. W. Teeter, Superintendent of Plant Breeding Work in the Federal Experiment Station, July 7, 1908.

H. W. Conn and J. O. Morgan, Assistants in Soil Investigation in the Federal Experiment Station, July 7, 1908.

M. B. Garrett and H. R. Weaver, Assistants in Reference Department of Library, June 9, 1908.

C. Woodyard and D. S. Cutter, Assistants in Law Library, June 17, 1908.

E. Hickman, Assistant to Warden of Sage College, June 17, 1908.

C. N. Thurber, Assistant to Registrar, June 22, 1908.

E. Sprigg, Superintendent of Buildings, June 2, 1908.

APPENDIX II

REPORT OF THE DEAN OF THE UNIVERSITY FACULTY

To the President of the University:

SIR:—I have the honor to submit my sixth annual report as Dean of the University Faculty. The subject matter is arranged with reference to the work of the committees of which the Dean is ex-officio chairman, and with reference to such functions as have been especially assigned to him by the Faculty.

During the past year the University was called upon to mourn the death of George Chapman Caldwell, one of the members of the first Faculty of Cornell University and at the time of his death emeritus professor of chemistry. The following resolutions of respect and condolence were spread upon the minutes of the Faculty and communicated to the family:

> "The Faculty of Cornell University inscribes the following tribute to the memory and worth of the late George Chapman Caldwell, Professor of Agricultural Chemistry in the institution from its inauguration in 1868 up to his retirement as emeritus in 1902, of Analytical Chemistry since 1875 and of General Chemistry since 1891.

"Educated in Harvard and Göttingen, after a teaching experience in Antioch College, O., and the Agricultural College of Pa., he was the first professor appointed to the Faculty of Cornell, where he presided for 34 years over the Chemical Department, while it grew from a small class room and laboratory until it taxed the capacity of two large buildings with a teaching staff of 21—one of the leading centers of chemical education and achievement in the world.

"In the chemical profession he early took high rank, his book on agricultural chemical analysis, the first work on that subject in English, was at once accepted as an authority and aroused an active interest in the important field which had been so brilliantly exploited by Liebig in Germany. His text books on analytical chemistry received a correspondingly wide appreciation and adoption.

"It was characteristic of Professor Caldwell that he kept himself in closest touch with all advances in a rapidly developing and almost illimitable subject, and unfolded this to his students in class room and laboratory, inculcating and enforcing such precision of method and thoroughness as would make all work of a full and permanent value. The many students, trained under him, and who now occupy prominent positions in teaching, in government service, in agricultural experiment stations and in collegiate and industrial positions, and their uniform success, bear forcible testimony to the efficiency and value of Professor Caldwell's teaching.

"His varied and comprehensive acquaintance with all divisions of the field of chemistry and the critical acumen with which he had worked out each subject received deserved recognition when, in 1892, he was elected to the presidency of the American Chemical Society.

"This great capacity for accurate and excellent work was early recognized by the Faculty, in which he served as Secretary from 1872 to 1886. The intimate acquaintance thus secured with all departments of the University work rendered him a trusted and valued adviser in all matters of university policy.

"Not of an assertive nature Dr. Caldwell stood out as a great man on the basis of strenuous work, thoroughness in every detail, accuracy in every result, and a sound judgment in seeking and arriving at the truth.

"His social life harmonized with his professional. His was the quiet, abiding friendship, the valued advice, the sterling example, the safe guidance. His students owed their prospects in life no less to this worthy influence than to the great excellence of his instruction, and everywhere they unite in thankfulness that they were brought under the influence of such a man. His name is to us a memory of one of the early builders of the University, a man deeply imbued with the scientific spirit, one who inspired his students to their best efforts in spite of the personally unostentatious disposition, a sincere lover of truth, and a worker who never wearied in well-doing.

James Law,
B. G. Wilder,
L. M. Dennis."

The year was also marked by the death of William Arnold Anthony, for fifteen years professor of physics in Cornell University. A memorial service was held in Sage Chapel on June 12th and the following resolutions were adopted by the University Faculty:

"*Whereas*, in the death of William Arnold Anthony, Ph.B., Professor of Physics in Cornell University from 1872–87, who departed this life on the 29th of May, 1908, in his 73rd year, many members of this Faculty who were his colleagues or his pupils have suffered a personal bereavement; and

"*Whereas*, he was a notable figure among the earlier engineers in America, a man of science, of rare gifts, a pioneer in technical and scientific education, a teacher almost unequaled in his power of inspiring and influencing his pupils and a man admired and beloved by all who knew him;

"*Be it resolved*, that we the members of the University Faculty desire to give expression to our sense of the great loss sustained by science and the cause of education in the death of this untiring devotee of sound scientific learning, whose long life was spent in the service of mankind; this strong hearted, generous, single-minded man, our former associate, whose friendship we have ever cherished and whose memory we delight to honor.

"*Be it further resolved*, that these resolutions be entered on the minutes of the Faculty and that copies be sent to the faculty of the Cooper Union, and to the surviving members of his family."

I. ADMISSION BY CERTIFICATE

During the year 1907–1908, the number of schools from which students were received by certificate was 223 and the number of students presenting certificates was 459. The number of schools whose students had no mark below a pass was 102 and the number of students admitted with no mark below a pass was 252. Thirteen schools received a general warning. Two were warned for special subjects and two were dropped from the list of accredited schools. Seven schools which were warned in February, 1906, and seven warned in February, 1907, which have not since that date sent students to the University, were continued as on probation.

In my last report I called attention to a movement for the creation of a board for accrediting schools in the middle states and Maryland. At its last meeting the Association of Colleges and Preparatory Schools of the Middle States and Maryland appointed a committee to call a meeting of delegates from the colleges in the middle states and Maryland, members of the Association, who desired to participate in the organization of a "College Entrance Certificate Board." This committee issued March 6, 1908, an invitation to Cornell University to take part in a meeting for the above mentioned purpose. This invitation was accepted and the Dean of the University was present at a meeting in Philadelphia on May 9th, when an organization was effected and a constitution adopted. At a subsequent meeting of the committee appointed for that purpose some rules of procedure were adopted. The constitution and rules of procedure will be submitted to the next meeting of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, and, if adopted, will be referred to the colleges of that Association for their approval. It would not be proper here to enter into the details of the proposed "College Entrance Certificate Board." But it may be said that its purpose is the same as that of a similar organization in the New England states and in the states of the middle west. The board will decide the questions of the qualification of schools and their continuation upon the list of accredited schools and there will probably be a uniform certificate blank. It is not the purpose of the proposed board to interfere in any way with the College Entrance Examination Board or to favor admission by certificate rather than by examination, but merely to promote the efficiency of the present system in the case of colleges admitting students by certificate.

If the proposed board is approved by the Association of Colleges and Preparatory Schools of the Middle States and Maryland and subsequently by a majority of colleges in that Association, the individual colleges which now admit students on certificate will be relieved of many difficulties. The objection to admission by certificate so far as Cornell University is concerned has never been on account of the scholarship of the students admitted by certificate, but almost exclusively on the ground of the difficulty of administering the system. The friction between the University and the schools has at times been considerable and disagreeable. This will, of course, be wholly removed when schools are placed upon the accredited list and removed from it by a board which also prescribes the form of certificate and the rules and regulations for its use. With a view to securing a uniform certificate blank, the chairman of the Committee on Admission by Certificate has entered into correspondence with the various departments in the University which have special requirements for admission, such as the submission of notebooks, detailed statement of studies, names and amount of authors read, etc. It seems probable that in most cases these special requirements will be relinquished and the statement of the school accepted.

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2. COMMITTEE ON STUDENT AFFAIRS

At a meeting of the University Faculty held November 8, 1907, a resolution was introduced abolishing the Committee on Student Conduct and the Committee on Student Organizations and substituting for these two committees a committee to be designated Committee on Student Affairs. On the 10th of January, 1908, the Faculty voted that the Committee on Student Conduct be abolished and that its functions, the Trustees consenting, be transferred to the Committee on Student Organizations "whose title is hereby changed to read: The Committee on Student Affairs." The new committee was appointed by the President at the meeting of February 14, 1908, under a resolution presented to the Faculty on December 13, 1907, and passed January 10, 1908. The resolution in question is as follows:

"*Resolved*, that the following standing committees of the University Faculty, namely, Admission by Certificate, Graduate Work and Advanced Degrees, Scholarships and Student Organizations be re-constituted as follows:

"1. Each of these committees shall consist of the Dean, ex-officio, and eight members of the University Faculty to be appointed by the President upon the adoption of this resolution.

"2. Of the eight members to be thus appointed, two shall be appointed to serve until November 1st, 1908, two until November 1st, 1909, two until November 1st, 1910 and two until November 1st, 1911.

"3. Vacancies to occur by the expiration of a term on November 1st of each year shall be filled by appointments to be made annually in October by the President.

"4. A member appointed for a full term of four years, or a member appointed to fill a term of more than one year shall not be eligible to renewed appointment at the end of that term.

"5. Vacancies occurring before the expiration of a term shall be filled by appointment by the President for the remainder of the unexpired term.

"6. In case of temporary inability to act, due to absence from the University or other cause, an *ad interim* appointment may be made by the President to be effective while the inability of the regular member continues."

It was understood that the Registrar should continue to act as before as secretary of the Committee on Admission by Certificate and the Committee on Student Affairs.

Since February 14, 1908, the functions formerly exercised by the Committee on Student Organizations and on Student Conduct have been discharged by the single Committee on Student Affairs.

The most important action of the year dealing with student organizations was that taken February 14, 1908, when the University Faculty on the recommendation of the Committee on Student Affairs adopted the following amendment to the Rules Governing Student Organizations:

> "In applying Rule IIc to baseball, any person, who, after April 1st, 1908, plays under a name other than his own, or who plays in a contest at which an admission fee is charged except as a member or representative of a school or college team, shall be conclusively presumed to have violated this rule."

The following explanation of this action of the Faculty was made by the chairman of the Committee:

> "For a long time the need has been felt of some way of enforcing the rule of the Brown Conference rendering ineligible those who have received remuneration for participation in any branch of sport. The principal difficulty occurs in summer baseball where the players receive remuneration directly or indirectly from the proceeds of the game.
>
> "Owing to the circumstances under which these games are played it is in most cases impossible to establish the violation of the rule. Even where a student plays in such games without remuneration he is suspected of receiving it and discredit is thrown upon the college team on which he afterwards plays.
>
> "The Faculty on the recommendation of the Committee on Student Affairs, (the former Committee on Student Organizations), has therefore adopted a rule creating a presumption arising from ascertainable facts which usually accompany a violation of the rule. There can be no justification for playing under an assumed name, and while a student may play without remuneration in games for which admission is charged, it is felt that for the sake of the reputation of the college all suspicion of the violation of the rule should be avoided."

The rule to which the amendment applies is IIc of the Rules Governing Student Organizations and reads as follows:

> "II. Intercollegiate Athletic Contests in General.—No person shall represent the University in any intercollegiate athletic contest either at home or abroad;
>
> "c. If he receives or has ever received any remuneration or consideration of any sort for his services in any branch, as performer, player, coach, or otherwise, apart from such necessary expenses as are actually incurred by him as a member of a college team, or of a permanent amateur organization in connection with occasional amateur contests."

The amendment is:

> "In applying Rule IIc to baseball, any person, who, after April 1st, 1908, plays under a name other than his own, or who plays in a contest at which an admission fee is charged, except as a member or representative of a school or college team, shall be conclusively presumed to have violated this rule."

The action of the Committee so far as it relates to student conduct has consisted in investigating cases of fraud in examination and of other cases of violation of the University rules reported to the Committee. The behavior of the student body in general has been excellent and events like the freshman banquet and "Spring Day" passed off without disorder or objectionable features. While, as I have said, the behavior of the student body in general is exemplary, there is, unfortunately, a small number of students who bring discredit upon the University by their disorderly conduct and one event during the last year, namely, the senior banquet, was attended by most reprehensible conduct on the part of a considerable number of the class. The best method of dealing with this subject has occupied the attention of the Committee on Student Affairs and two plans have been suggested. One is the employment of a University officer who as proctor shall have certain powers and duties for the repression of disorderly conduct. The second method is to obtain, if possible, the cooperation of the student body by means of a general committee composed from the upper classes to act with the Committee on Student Affairs in matters dealing with student conduct. If the various student organizations now existing, fraternities, clubs, etc., should take a firm and decided stand in regard to the conduct of their members in public, a great deal would be accomplished. But, unfortunately, cases of fraud in examination and public intoxication are too often considered as venial offenses and no action whatever is taken by the organization to which the offender belongs. The large majority of students are in favor of honorable behavior within and without the University, and if their cooperation could be secured by the Committee on Student Affairs, the evils complained of could be largely abated, if not wholly abolished. The Committee on Student Affairs proposes at the beginning of the next academic year to meet with representatives of the various classes with the above ends in view. It is to be hoped that this movement may result in the establishment of a representative committee of the students which shall become a permanent institution and afford the Committee on Student Affairs a convenient means of communicating with the student body.

3. GRADUATE DEPARTMENT

In my report for 1905–1906, page xiv, I stated that on April 11, 1906, a special session of the University Faculty considered the subject of the needs and prospects of the Graduate Department, and a committee was appointed to consider and report upon certain matters in relation to the Graduate Department. On February 8, 1907, this committee recommended to the Faculty the adoption of the following resolution:

"*Resolved*, that the University Faculty recommend to the Board of Trustees the establishment of a graduate school under the administration of a separate Faculty to consist of the professors in those departments in which graduate work is offered."

After a brief debate it was moved and carried that the report of the committee be accepted and the committee discharged.

In my report for 1906–1907, page xx, I said that I regretted that the report of this Committee received so little attention and I trusted that the whole subject might receive the careful consideration of the University Faculty next year. On November 8, 1907, it was moved in the University Faculty that a committee of five be appointed by the President to consider and to report on the organization of a graduate school. It was also voted at the same meeting that the committee on the organization of a graduate school to be appointed by the President, as soon as it has sufficiently proceeded with its inquiries, request the Committee on Graduate Work to confer with it. The President of the University subsequently appointed the following committee in pursuance of the first resolution:

The Dean, chairman, Professors E. B. Titchener, E. L. Nichols, W. F. Willcox and A. Ross Hill.

This committee met frequently during the year and considered various means for increasing the efficiency of the Graduate Department, such as the appropriation of money for research work in the graduate department; retirement of professors under the service clause of the Carnegie Foundation with subsidiary pensions from the University to enable them to devote themselves exclusively to research without great pecuniary sacrifice; shortening of the teaching year and reduction of the routine and administrative duties to a minimum, etc. They also considered such secondary aid to the Graduate Department as might consist in special announcements containing not merely courses, but a statement of facilities for research, list of titles of investigations published during previous years and of those in progress; and, finally, the committee considered the modification of admission requirements in the direction of greater liberality and the admission of our own students to graduate standing at the beginning or middle of the senior year in cases where they have by selection of their work prepared themselves for such standing in some one department.

The committee in its partial report to be mentioned presently had no specific recommendation to make in regard to these points, although it felt that the adoption of some or all of them would increase the efficiency of the Graduate Department. It seemed to the committee that the most urgent need of the Graduate Department was its reorganization in some form which should concentrate responsibility in the hands of the persons actively engaged in the work of the Graduate Department. The Graduate Department as at present organized is in charge of the University Faculty and the Dean of the University Faculty is ex-officio chairman of the Committeee on Graduate Work, which is really the only organization responsible for the management and efficiency of the Graduate Department. This Committee now consists of eight members renewed from year to year. The chairman of the Committee, the Dean of the University Faculty, is responsible for the conduct of business and on him falls practically the entire routine work of the Graduate Department. The Dean is at present chairman of all the other standing committees of the University Faculty and is unable to devote his attention exclusively to any one of these committees. The Committee on Graduate Work is called together only when cases arise which the chairman does not feel authorized to settle and the Committee has no share in the routine work or any responsibility for its efficient conduct. The Committee also does not consider itself as a legislative body and rarely suggests improvements.

The committee of five above mentioned met with the Committee on Graduate Work and on June 12th made a report of progress to the University Faculty, recommending that beginning with September, 1909, there should be created a Graduate School with a faculty of its own, consisting of professors who in each year are actively engaged in supervising the work of graduate students as members of special committees in charge of major or minor subjects, these professsors to be designated by the President as soon as possible after the registration of graduate students in each year. The committee also recommended the creation of a new office, that of Dean of the Graduate School, the duties of that officer to be to serve as executive officer of the Graduate Faculty as above constituted and to conduct the work of the Graduate School under the direction of the Faculty of that School. This partial report of progress was accepted by the Faculty and the committee continued with the understanding that a final report should be presented as early as possible next year.

In my last report, page xx, I called attention for the second time to the question of graduate work done during the summer, either in the session of the summer school or outside the session of the summer school. This subject has occupied the attention of the Committee on Graduate Work during the year and the necessity of some limitation of such work was recognized. The number of students taking work during the summer, either in the Summer Session or during the summer vacation, is increasing every year and will undoubtedly increase more rapidly when it is understood that work during the summer may in certain cases reduce the time required for the Doctor's degree from three years to two. The ordinary candidate receives credit for a year for the work done during the regular sessions of the University and if he continues his work privately during the summer vacation receives no credit for it. But the candidate pursuing work in botany, entomology and agricultural subjects may receive credit for one year and one third for the work done during the college year and the vacation. It is a very serious question whether this discrepency between various classes of candidates for the same degree should be allowed, but in my own judgment the most serious objection to work done during the summer is the fact that no organized provision exists for it outside of the brief Summer Session. It does not seem right to expect professors to remain in Ithaca during the summer giving instruction to graduate students and supervising their work, without extra compensation. At the same time it does not seem right to give credit toward a degree for work which is not pursued under substantially the same conditions as those which prevail at the regular sessions of the University. I trust that upon the reorganization of the Graduate Department this subject will receive prompt attention and the policy of the University in this important matter will be more clearly defined.

Graduate students who are not candidates for a degree, as well as those who are, have been required to work under the direction of a special committee of the Faculty. The numbers of such students for the past sixteen years have been as follows:

'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08
4	1	11	14	18	14	35	20	22	19	18	12	11	21	18	13

The number of advanced degrees conferred during the years 1892–1908 was as follows:

	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	Tot.
A.M. . .	6	4	8	2	1	10	10	16	14	20	19	22	12	23	13	10	22	212
Ph.M. .	2	—	3	1	3	—	—	—	—	—	—	—	—	—	—	—	—	9
M.L. . .	1	3	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	9
M.S. . .	7	6	10	7	12	6	6	3	—	—	—	—	—	—	—	—	—	57
M.C.E.	—	2	8	4	—	1	3	2	1	3	—	3	—	3	1	1	2	34
M.M.E.	6	14	16	8	15	6	2	7	4	10	4	7	6	9	4	4	5	127
Ph.D. .	8	4	16	13	14	11	23	7	19	20	23	20	13	21	19	19	22	272
D.Sc. . .	—	2	3	6	3	3	—	—	—	1	—	—	—	—	—	—	—	18
M.S. in Agr.	—	—	—	—	—	—	—	—	—	—	7	3	2	10	11	9	12	54
M.S. in Arch.	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	3	8
Total. .	30	35	66	44	48	37	44	35	38	54	53	56	34	67	49	44	66	800

The candidates for advanced degrees during the years 1896–1908 were distributed as follows:

I. By degrees:	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08
A.M.	3	14	19	31	35	45	40	55	40	50	41	54	65
Ph.M.	6	—	—	—	—	—	—	—	—	—	—	—	—
M.L.	4	—	—	—	—	—	—	—	—	—	—	—	—
M.S.	9	3	1	—	—	—	—	—	—	—	—	—	—
M.S. in Agr.	5	7	9	7	4	13	12	8	12	17	26	24	35
M.S. in Arch.	1	1	1	3	1	—	—	2	3	3	2	2	2
M.C.E. . . .	5	3	4	3	3	5	1	4	5	5	12	6	4
M.M.E. . .	18	10	11	12	9	17	15	16	19	22	15	20	18
Ph. D.	58	79	89	93	100	100	100	95	94	85	116	117	110
D.Sc.	22	16	11	6	2	3	2	2	2	—	—	—	—
Total.	131	133	145	155	154	183	170	182	175	182	212	223	234

II. By subjects (each minor counted separately) during the years 1895–1908:

SUBJECT	MAJOR													MINOR												
	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08
Semitic Languages	—	—	—	—	—	—	—	1	—	7	1	1	—	—	1	1	1	2	1	1	—	—	—	—	—	—
Greek, Comp. Phil	2	5	5	7	8	6	6	6	3	—	4	4	2	15	13	14	18	17	16	11	14	14	11	9	9	9
Latin	4	3	4	4	4	7	5	7	9	3	5	6	6	3	3	3	6	7	7	5	8	3	4	3	6	4
Germanic Languages	4	4	1	2	2	3	4	7	3	2	3	4	4	5	5	7	8	7	8	9	9	6	3	4	6	3
Romance Languages	3	6	5	7	3	3	4	6	4	5	4	5	6	6	9	8	6	6	9	9	6	8	6	7	11	13
English	11	12	11	12	12	10	9	7	4	4	7	7	10	12	17	5	7	8	7	7	11	2	4	9	11	11
Philosophy	20	14	15	13	15	14	13	11	14	11	13	16	18	37	30	35	32	22	20	24	22	18	17	23	21	24
Science and Art of Edu. (previously under Philos.)	—	—	—	—	—	2	3	6	—	2	1	1	12	—	—	—	—	—	7	5	4	1	3	—	1	10
History and Political Science	16	15	24	23	16	15	17	15	7	9	9	13	8	28	31	47	43	31	25	36	28	15	18	27	28	16
					9	7	6	5	4	6	12	9	5					12	10	9	7	10	13	18	17	19
Math. and Astron.	4	4	3	7	8	6	6	9	6	8	14	12	9	16	21	18	20	17	25	18	18	14	13	20	21	14
Physics	9	12	12	12	10	17	8	9	9	10	18	24	25	20	14	18	22	18	22	16	19	15	21	38	49	49
Chemistry	11	14	18	13	14	15	17	21	20	21	31	30	32	11	14	18	15	18	25	24	20	18	18	30	33	40
Botany, Arboriculture	6	7	7	9	9	10	10	13	10	12	13	12	6	14	15	19	15	20	22	19	21	18	20	29	23	20
Entomol., Gen. Inv. Zool.	1	2	1	3	8	14	9	9	5	10	10	14	8	3	4	3	10	11	15	18	16	10	15	16	25	19
Physiol., Vertebrate Zool.	1	2	1	—	1	2	3	3	4	6	7	1	3	3	3	1	2	4	1	1	2	5	4	8	6	2
Anatomy	—	—	1	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	2	2	—	1	—	—	—	—
Microscopy, Embryology	—	—	1	1	2	5	6	3	5	3	1	2	—	—	3	2	2	6	7	8	7	5	5	3	2	3
Geol., Paleont., Mineral	2	4	4	2	4	3	5	6	4	7	3	5	7	8	11	13	11	11	10	10	14	9	15	13	9	10
Physical Geography	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	5	5
Medicine (Anatomy)	—	—	—	—	—	—	—	—	1	2	—	—	2	—	—	—	—	—	1	—	—	4	6	3	6	1
Agriculture	8	11	13	13	3	11	11	5	13	13	31	27	42	3	10	13	13	8	8	10	5	10	17	36	28	46
Horticulture	—	—	—	—	7	6	4	6	3	9	6	4	—	—	—	—	—	4	6	4	3	3	4	3	2	—
Forestry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—	—	—
Veterinary Medicine	—	—	1	1	2	—	2	1	1	1	4	—	—	—	—	3	2	3	3	3	8	4	1	7	1	—
Architecture	1	1	1	3	1	—	—	2	2	1	3	2	3	—	1	1	3	1	1	—	2	1	1	1	2	1
Civil Engineering	8	4	5	4	6	8	4	6	6	8	14	7	5	10	5	5	6	9	8	6	7	11	12	13	9	4
Mechanical Engineering	20	13	12	15	10	19	18	19	17	19	17	20	20	19	16	11	14	10	17	19	16	13	17	16	17	18
Law	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—

III. Actual number of students in each subject during the years 1895–1908.

SUBJECT	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08
The Semitic Languages and Literatures	—	1	1	1	2	1	1	1	—	—	1	1	—
Greek and Comparative Philology (including Classical Archæology)	8	6	10	14	16	14	11	12	12	10	9	12	8
Latin	5	4	6	10	11	13	9	15	14	11	8	12	10
The Germanic Languages	5	8	7	10	8	10	11	13	10	5	7	8	7
The Romance Languages	5	8	8	9	7	9	10	9	8	6	8	10	12
English	16	19	12	14	13	14	13	15	4	6	9	14	15
Philosophy	22	19	22	21	22	18	19	17	18	14	16	19	21
Science and Art of Education (previously under Philosophy)	—	—	—	—	—	9	7	9	2	5	1	2	11
History, Ancient and Mediæval	8	5	7	11	4	11	18	22	11	16	26	3	6
Modern	11	14	21	22	27	15	20		8			16	10
American	8	9	15	12	15	14	14	15	9	10	11	10	8
Political Science and Social Science	12	9	15	12	13	14	9	7	9	14	17	18	21
Mathematics and Astronomy	14	18	20	18	18	23	18	21	18	14	23	24	17
Physics	21	17	19	24	18	22	18	21	22	20	33	41	42
Chemistry	13	15	19	14	17	20	21	26	26	23	35	33	35
Botany and Arboriculture	13	14	15	16	17	19	15	19	13	18	25	20	19
Entomology and General Invertebrate Zoology	4	6	4	10	14	22	20	18	18	17	18	28	19
Physiology, Vertebrate Zoology and Neurology	3	1	2	3	5	2	4	5	8	9	13	7	4
Anatomical Methods and Human Anatomy	—	2	1	—	—	2	2	—	—	—	—	1	—
Microscopy, Histology and Embryology	3	3	3	3	8	12	13	10	10	8	4	4	3
Geology, Paleontology and Mineralogy	7	8	11	10	11	10	10	12	10	13	12	11	11
Physical Geography	—	—	—	—	—	—	—	—	—	—	—	5	6
Medicine (Anatomy)	—	—	—	—	—	1	—	—	3	6	3	6	3
Agriculture	4	7	10	10	7	13	14	9	15	19	36	31	44
Horticulture	5	10	12	11	9	11	8	7	4	10	8	4	—
Forestry	—	—	—	—	—	2	—	2	—	—	—	—	—
Veterinary Medicine	—	—	2	1	2	3	5	9	5	2	6	1	1
Architecture	1	1	1	3	1	1	–	2	3	1	3	2	4
Civil Engineering	10	5	6	5	7	8	6	7	11	12	19	11	6
Mechanical Engineering	23	16	14	17	11	22	23	21	20	20	21	21	21
Law	—	—	—	—	—	—	—	—	—	—	—	1	—

During the past twenty years 1,872 graduates of 227 institutions have been admitted to graduate work, distributed as indicated in the following table:

Acadia	7
Adelphi College	3
Adelbert	3
Alabama Agr. and Mech. Coll.	2
Albion	3
Alfred	3
Allegheny	3
Amherst	6
Anatolia	1
Arkansas	5
Armour Inst. of Tech.	1
Baker Univ.	1
Barcelona Coll.	1
Barnard College	1
Bates	3
Beloit	2
Bengal Agr. College	1
Bengal Presidency College	1
Berea College	2
Boston	4
Bowdoin	2
Brigham Young	1
Brown	16
Bryn Mawr	1
Buchtel	6
Bucknell	4
California	20
Cambridge University	2
Campbell	1
Cape of Good Hope	1
Capitol	1
Carleton	2
Chaddock	1
Cheshire Agr. and Hort. Coll. (England)	1
Chicago, Univ. of	7
Cincinnati	3
Clark University	1
Colgate	4
Colorado, Univ. of	4
Colorado State Agr. Coll.	1
Colorado School of Mines	1
Columbia	15
Columbia School of Law	1
Cooch-Behar Coll. (India)	1
Cornell College	3
Cornell University	840
Dalhousie	23
Dartmouth	6
Davidson	3
Denison	1
Denver	1
DePauw	19
Duff College (India)	1
Earlham	6
Ecole Nationale (France)	1
Elmira	2
Erlangen (Germany)	1
Fargo College	1
Franklin	3
Franklin and Marshall	1
Furman University	2
Gallaudet	1
Georgia, Univ. of	2
Geo. Washington Univ.	1
General Assembly's Institute (India)	2
Ghent, State Univ. of	1
Greenville College	1
Halle	3
Hamilton	9
Hamline	1
Hannover Tech. Hochschule	1
Harvard	21
Harvard Annex	1
Harvard (Lawrence Scientific)	1
Haverford	3
Hillsdale	4
Hobart	3
Illinois	18
Illinois College	1
Illinois Wesleyan	2
Imperial Royal Higher Gym.	1
Indiana	52
Indianapolis	4
Institute Nat. Agronomique	1
Iowa Agr.	7
Iowa College	6
Iowa State University	9
Iowa State College	1
Iowa Wesleyan	1
Japan Imperial Univ.	2
Johns Hopkins	9

Kansas Agr.	7
Kansas State Univ.	15
Kentucky State College	1
Knox	6
Lafayette	4
Lake Forest	3
Lawrence	1
Lehigh	8
Leipsic	1
Lombard	1
London	2
Luther	3
McGill	6
MeKendree	1
Maine, Univ. of	8
Manitoba	7
Mason (Birmingham, Eng.)	1
Massachusetts Agr.	8
Massachusetts Inst. of Tech.	8
Mercer University	1
Miami University	2
Michigan Agr.	11
Michigan, Univ. of	32
Middlebury Coll.	1
Milton	1
Minnesota	18
Missouri School of Mines	1
Missouri State	16
Moore's Hill College	1
Mt. Allison	5
Mt. Holyoke	5
Mt. Union	1
Napa	1
Nashville	3
Nebraska	18
Newberry	1
New Brunswick, Univ. of	1
Newcomb	3
New Hampshire College	3
New Hampshire Agr.	1
New York, Coll. of the City of	5
North Carolina	7
North Carolina Agr. Coll.	3
North Dakota, Univ. of	3
Northwestern Univ.	5
Notre Dame	1
Oberlin	10
Ohio State	32
Ohio University	5
Ohio Wesleyan Univ.	4
Ohio Northern Univ	1
Oklahoma, Univ. of	1
Ontario Agr. Coll.	1
Oregon State Univ.	2
Oregon Agr. College	2
Ottawa	1
Otterbein	1
Oxford	1
Pacific Univ. (Calif.)	1
Pacific Univ. (Oregon)	1
Penn Coll. (Iowa)	2
Pennsylvania Coll. for Women	1
Pennsylvania State	3
Pennsylvania, Univ. of	4
Pennsylvania, West. Univ. of	2
Pine Hill Theol. Sem.	1
Pomona College	1
Presbyterian College of S. C.	1
Princeton	8
Purdue	15
Queen's Univ. (Kingston, Can.)	3
Randolph-Macon	1
Rensselaer Poly. Inst.	1
Rochester	9
Rockford Coll.	1
Rose Poly. Inst.	3
Rutgers	5
St. Andrews (Scotland)	1
St. Lawrence Univ.	2
St. Petersburg (Russia) Real Gymnasium	1
Scio College	1
Sibpur Agr. Coll. (India)	3
St. Stephens College	1
Smith	25
South Carolina	3
South Dakota Agr	3
Southern California	2
Southwestern Univ. (Texas)	1
St. Olaf	1
Stanford	13
Stevens Inst.	7
Susquehanna Univ.	2
Swarthmore	4
Sydney Univ. (New So. Wales)	2
Syracuse	13
Texas	7
Texas Agr.	4
Tokio University	3
Toronto	24
Trinity Coll. (Toronto)	1
Tulane	1

Union	3
U. S. Naval Academy	4
Ursinus College	1
Utah University	1
Utah Agr. Coll	2
Vanderbilt	1
Vassar	20
Vermont	3
Victoria	1
Vienna (Austria)	1
Virginia	1
Virginia Agr. and Mech. Coll.	2
Virginia Poly. Inst	3
Wabash	8
Wake Forest College	5
Washington Univ	3
Wellesley	14
Wells	3
Wesleyan	7
Westminster	2
West Virginia, Univ. of	3
Wheaton	2
Washington State Coll	2
Western Reserve	2
Williams	5
Wilson	1
Wisconsin	18
Wittenberg	1
Woman's College, Baltimore	3
Wooster	3
Worcester Poly. Inst	6
Yale	11
Yale Theological Sem	1
Yale (Sheffield)	5
Zurich Polytechnium	1

4. SCHOLARSHIPS AND FELLOWSHIPS

No changes have been made during the year in regard to the University undergraduate scholarships. The full number of 18 was filled at the examination in September, 1907.

At the meeting of the University Faculty held December 13, 1907, the following resolution was adopted and submitted to the Board of Trustees for its approval, which was subsequently granted:

> "No officer of the University shall assist directly or indirectly in the preparation of any competitor for a university undergraduate scholarship, or take any action that might result in the slightest real or apparent advantage to one competitor over another. The heads of departments concerned shall be responsible for the secrecy of the examination questions, and shall take special precautions during the processes of type setting and printing. Each examination shall be in charge of a professor or an assistant professor, and no person below the grade of instructor shall act as proctor or reader, or have access to the papers of the competitors."

This resolution was accompanied by a statement that the Faculty saw no reason to reflect on the fairness of any person in the past, but desired to safeguard the future and to remove every possible ground of suspicion as to the scrupulous impartiality of the award of these great prizes for which the competition is so keen.

5. FACULTY LEGISLATION

The legislation affecting the standing committees of the University Faculty has already been referred to in the chapter of this report dealing with the Committee on Student Affairs. Considerable time was devoted during the year to the consideration of proposed changes in the University calendar. Two plans were submitted. The first provided that instruction begin on September 1st and end December 22nd, that instruction be resumed January 22nd and end May 16th with Commencement on May 26th. The second plan provided that instruction begin two weeks later than at the present; that the present Christmas holiday vacation be retained; that the first term end two weeks later than at present; that the second term begin three days after the end of the first term, as at present; that the spring vacation be abolished and that the second term end at the same date as at present. These plans after some debate were referred to the Committee on University Policy to consider and report. On the 13th of March, 1908, the Committee on University Policy reported that the Committee deemed it at present undesirable to make any changes in the calendar, and the report of the Committee was approved.

At the same meeting the Committee on University Policy recommended to the Faculty that the University exercises begin at ten minutes past the hour and end promptly at the hour, and the recommendation was adopted.

Respectfully submitted,
T. F. Crane,
Dean of the University Faculty.

APPENDIX III

REPORT OF THE DEAN OF THE FACULTY OF ARTS AND SCIENCES

To the President of the University:

Sir:—I have the honor to submit herewith my first report as Dean of the Faculty of Arts and Sciences covering the academic year 1907–1908. The year has been an active one in Faculty legislation, and the report consists mainly of a resumé of this legislation and of the work of the standing committees of which the Dean is ex-officio chairman.

ENTRANCE REQUIREMENTS

At the very beginning of the session the question arose in both of the standing committees of the Faculty whether some changes in the entrance requirements of the College might not be desirable. Several changes had been made in the curriculum for undergraduates without considering the entrance requirements as related to them, and it was thought by the committees to be an opportune time for an investigation of the administrative workings of the existing requirements, and for a consideration of their educational validity. The Committee on Educational Policy was interested primarily in the questions of the special function of secondary as distinct from higher education, what should be required of every student on entering College as the foundation for further study, and what might be left to individual interest and local circumstances. The Committee regarded it as desirable that the College insist upon a reasonable continuity of work in the preparatory school, but on the other hand felt it unfair to the individual student to refuse him all recognition for work not carried to the maximum of high school credit in one subject. The existing requirements, for instance, allowed no credit on entrance Latin except to those who were able to present the equivalent of four years of high school study in Latin grammar and composition, Cæsar, Cicero and Virgil. The Committee believed that the student who pursued Latin for two or three years should get credit for the work done, but regarded two years as the minimum if the training was to be counted as having much value. Similarly the Committee on Academic Records found the administration of the existing requirements somewhat complicated because so many students could present two or three years of Latin, but not four, because persons who could present Greek without Latin had no opportunity to get the Greek counted, and because of similar restrictions placed upon credit in other subjects. It was also found that the unit in terms of which the entrance requirements had been defined was peculiar to Cornell and not altogether easy of interpretation by students, or even teachers, in the preparatory schools; and it was thought better to adopt the unit in common use throughout the country since its definition in the report of the N. E. A. Committee on College Entrance Requirements in 1898, namely, "The equivalent of a course pursued throughout one year in a secondary school with five recitations a week."

After full discussion and the study of existing requirements in other institutions of Cornell's rank, both Committees unanimously agreed to recommend to the Faculty the adoption of the following requirements for admission to the College of Arts and Sciences:

English	3 units
History	1 unit
Elementary Algebra	1 unit
Plane Geometry	1 unit
Foreign Languages	4 units
Elective	5 units

The unit referred to is the national unit above mentioned, and the subjects which may be presented for entrance and the minimum and maximum number of units which may be accepted in each subject were fixed as follows:

English	3 units
History and Civics	1, 1½, 2 or 2½ units
Latin	2, 3 or 4 units
Greek	2 or 3 units
German	2 or 3 units.
French	2 or 3 units
Spanish	2 or 3 units
Algebra	1, 1½ or 2 units
Plane Geometry	1 unit
Solid Geometry	½ unit
Trigonometry	½ unit
Physics	1 unit
Chemistry	1 unit
Physiography	1 unit

Botany	1 unit
Zoology	1 unit
Botany and Zoology	1 unit
(Not accepted if one unit in either botany or zoology is offered)	
Drawing	½ or 1 unit

The report of the Committees was unanimously adopted by the Faculty on November 1, 1907.

The result of the new requirements is to raise somewhat the total number of units required for admission and to give at the same time greater flexibility, while the specific requirements are expected to guarantee the essentials in preparation for college.

On December 6, 1907, the Faculty agreed to accept, in lieu of the new requirements for admission, the "College Entrance Diploma" issued by the State Education Department of New York State, provision for which was made at the meeting of the Board of Regents on October 17, 1907, in response to a resolution of the State Examinations Board. A statement of the requirements of this diploma will be found on pages 237–239 of the annual report of the Education Department of New York State for the year 1908. They correspond very closely to the new requirements at Cornell, and the acceptance of this diploma will greatly simplify the administration of admission on Regents' credentials.

The new requirements were put into effect at once and students have entered the College in accordance with them since December last, but for a period of two years incoming students will be permitted to enter on the former requirements if they prefer to do so. Probably many students from private preparatory schools will prefer to meet the specific but somewhat lower standards of the old requirements, as their courses have been planned with reference to them, but graduates of the public high schools, especially of New York State and of the west, will undoubtedly find the new requirements more in keeping with the arrangement of courses and valuation of units under which they have been trained and they will prefer to meet the higher standards but more flexible arrangement of the new requirements.

ADVANCED STANDING FOR WORK DONE IN PREPARATORY SCHOOLS

At the same meeting of the Faculty the following resolution, which had been introduced in the University Faculty and referred to the Faculties of the several Colleges for separate action, was read and referred to the Committee on Educational Policy:

"*Resolved*, that credit toward a University degree for work done in institutions other than those of collegiate rank will be given only to such students as pass successfully an examination set by the department concerned. The examination will cover substantially the same ground as the University course in the subject and may not be taken unless application for admission to the examination is received by the department at least one week before the examination and permission to enter the examination has been obtained from the department concerned."

Several meetings of the Committee were held to consider this resolution, to one of which the Committee on Academic Records was also invited. The Committee gradually reached the conclusion that it would be unfair and unwise to give no advantage to students from the better schools except on examination so long as the University retains the practice of admission by certificate. With a view to still further advancing the standards of the University, it was also thought to be desirable to encourage the better schools to have their students complete, before coming to Cornell, some of the more elementary work that is now offered and counted towards the degree of Bachelor of Arts. It was thought, too, that while in some courses the work of the first years in college must be qualitatively different from work in the corresponding courses in high schools, this would not hold true of certain subjects which are pre-eminently appropriate for high school subject matter, for instance, modern languages. There seemed no good reason why beginning French or German might not be as well taught and as thoroughly mastered in the high school as in college. Finally, the Committee unanimously agreed to recommend the adoption by the Faculty of the following resolutions as substitutes for the one referred from the University Faculty:

"1. *Resolved*, that the Registrar be requested to report to the Committee on Academic Records the amount and character of the preparatory work of which each Freshman has submitted evidence.

"2. *Resolved*, that the Committee be authorized to deduct from the 120 hours required for the degree of A. B. as many hours as the excess of the student's preparatory work over 15 units may warrant.

"3. *Resolved*, that a student of whom not more than 108 hours are thus required for graduation shall be considered as having completed one term of residence.

"4. *Resolved*, that the Committee on Academic records shall be requested to furnish each student entering the College of Arts and Sciences for the first time with a statement of the conditions on which he may expect to receive the degree of Bachelor of Arts."

These resolutions were discussed at length and adopted by the Faculty on January 3, 1908.

ADMINISTRATIVE BOARD FOR FRESHMEN AND SOPHOMORES

At the meeting of the Faculty of Arts and Sciences held on February 7, 1908, a communication was received from the Secretary of the Executive Committee of the Board of Trustees announcing the following action of the Committee taken February 3, 1908:

"*Whereas*, The Association of American Universities, which is composed of the eighteen foremost universities of the United States, at its last annual meeting held in Ann Arbor, January 9th–10th, 1908, defined an American University as an institution which (1) possessed a strong graduate department and (2) based its professional work on a college course of liberal education, which should ordinarily be at least two years, and made this definition the criterion of admission to the Association, and consequently the condition of recognition by certain governments; and

"*Whereas*, among the best of our colleges and universities the great break in the course of a collegiate or liberal education comes at the end of the second year, both as regards the curriculum and the methods of instruction; and

"*Whereas*, not only is the foregoing tendency well marked in the College of Arts and Sciences in Cornell University, but the action recently taken by the professional faculties gives the work of the first two years in the College of Arts and Sciences a new importance for the professional schools; and

"*Whereas*, this differentiation of the work, methods of instruction, and educational aims of the first two years of the course in the College of Arts and Sciences in contrast with those of later years of that course calls for a corresponding differentiation in the staff of instruction, which could not fail to insure greater thoroughness of instruction, greater simplicity and effectiveness of administration, and closer personal and social intercourse between teachers and students; be it, therefore,

"*Resolved*, that a Special Committee, of which the Chairman shall be a member, be appointed to confer with a similar Committee from the Faculty of Arts and Sciences, with a view to formulating a scheme of reorganization and elaborating such details as may seem expedient.

"The Chair appointed as such Committee, Trustees Schurman, Van Cleef, Treman, C. E., and Newman."

After full discussion the Faculty decided to elect a committee of five to confer with the committee of the Board of Trustees, the results of their deliberations to be reported back to the Faculty before any action should be taken by the Board of Trustees. The following members of the Faculty were elected members of the joint committee: Professors Crane, Hill, Hull, Nichols and Willcox.

Several conferences of the joint committee of Board and Faculty were held, and the Registrar prepared for the committee a full and careful statistical statement of the registration of freshmen and sophomores in the courses offered in this College. It was discovered that the total number of registrations amounted to 2,002 in 143 courses, but that 1,785 of these registrations, or about nine tenths of the whole number, were found in 55 courses, each registering from 8 to 141 freshmen and sophomores, and that almost three fourths, namely 1,444 of 2,002, were found in 28 courses whose minimum registration was 20 students of the first two years. These facts convinced the members of the joint committee of the possibility of legislation regarding the work of students in the first two years that would apply to the great majority of such students, without involving any change in the work of juniors and seniors.

With a view to having a special group of teachers made responsible for the work of freshmen and sophomores in the College of Arts and Sciences and to bringing these students into close relation with a definite group of teachers regarded as especially their own, the committee recommended:

> "That Freshmen and Sophomores be put in charge of an administrative board which shall consist of a group of teachers designated by the President; and that this administrative board in charge of Freshmen and Sophomores shall have full power to supervise their work and to provide means for making it effective; and while for the accomplishment of this object this administrative board is empowered to make such rules, regulations, and arrangements as they may deem expedient, their action in these matters may at any time be disallowed by the Faculty. And the Faculty reserves to itself the function of legislation on all important subjects, and especially on the subjects of entrance requirements, courses of study, and standards of admission to the College and for advancement from class to class."

The committee further recommended:

> "That the Dean of the College of Arts and Sciences be ex-officio Chairman of the aforesaid administrative board in charge of Freshmen and Sophomores. But in order that the Dean, whose functions are already very numerous and onerous, may not be over-burdened, it is recommended that another member of the administrative board be appointed secretary of the board at a salary to be fixed by the Trustees, the duties of said secretary to be fixed by the Dean, whose assistant he is to be and to whom he shall be responsible."

This report was adopted by the Faculty at a special meeting on April 17, 1908, and the President named as members of the administrative board for freshmen and sophomores the following teachers in the College of Arts and Sciences: Messrs. Adams, Bristol, Browne, Catterall, Creighton, Durham, Faust, Gordon, Ibershoff Olmstead, Prescott, Reed, Sampson, Shearer, Tanner, Tarr.

Subsequently on the recommendation of the Dean-Elect, Professor Hull, the Trustees appointed Assistant Professor Durham of the Latin Department as secretary of said board.

It is hoped that this movement will tend to foster closer personal relations between freshmen and sophomores and their teachers and will render more efficient the instruction in elementary courses. The experiment will be watched with interest by the Faculty and friends of the College.

VOCATIONAL COURSES

At the special meeting of the Faculty on April 17, 1908, a matter that had occupied the attention of the Committee on Educational Policy for several months was brought before the Faculty for definite consideration and action. At the December meeting the President had called attention to the recommendations made in his Annual Report to the Trustees for 1906–1907 in regard to the formulation of vocational courses in the College of Arts and Sciences, and after some general discussion the recommendations had been referred to the Committee on Educational Policy for consideration and report. The Committee studied carefully the practices of other universities and discussed at length the questions of policy involved for this College. It was thought that the essential purpose of the College should be to furnish opportunity for those who wish to pursue the arts and sciences without reference to their utility; and yet it was the general belief of members of the Committee that the great majority of students actually do have vocational aims in taking a college course, and that there would be decided advantages if courses were organized in groups so that students with vocational aims might plan their work with greater ease and definiteness, with less waste of time, and with better results in training. On the other hand there was some fear lest the announcement of groups of vocational courses might seem to invite students to the pursuit of vocational aims in their study at a sacrifice of the spirit of liberal culture to which the College is primarily dedicated, thus making the College of Arts and Sciences essentially a professional school, similar in spirit to the other professional schools of the University but with less unity of purpose. But the dangers involved being regarded as problematical, and the advantage of giving motivation to the work of some students where none seems now to exist, being obvious the Committee finally decided to recommend to the Faculty the adoption of the folowing resolutions:

> "1. *Resolved*, that the Faculty of Arts and Sciences favors the arrangement of groups of courses for Juniors and Seniors in this College designed to guide students in preparing for the vocations of teaching, organized philanthropy, the civil service, and business management.
>
> "2. *Resolved*, that the Faculty hereby requests the President to appoint committees, each comprising one or more members, to arrange such groups of courses subject to the approval of the Faculty.
>
> "3. *Resolved*, that the Faculty recommends that the courses to be included in such groups be mainly those of a fundamental character rather than such as are highly specialized or applied."

The resolutions were adopted by the Faculty and there was added a fourth resolution recommending that in the arrangement of groups the committees be requested to allow considerable free time for the pursuit of studies not intended to bear directly upon the student's future vocation.

The committees recommended were appointed by the President, and groups of courses were arranged for prospective teachers, business managers, and workers in organized philanthropy. These groups were reported to the Faculty and, after some amendments, were adopted, but as they will be announced in detail elsewhere it does not seem necessary to give here even a general outline of their content. The committee appointed to arrange a group of studies for students looking forward to the civil service did not report before the close of the academic year.

REGISTRATION AND CREDIT

A matter that claimed the attention of the Committee on Academic Records for a good part of the year was the method of registration and of securing changes in registration. The fact that students registered not only with the Dean but with the departments as well, made it possible for the registration with the Dean especially to be counted largely formal, and made too easy unnecessary changes in registration before the end of each term. It was especially noticeable that many of these changes in registration were made after the middle of the term, showing that students in some cases virtually disregarded their registration at the central office, and did much as they pleased in the matter of registration in courses, only taking care in the majority of instances that the formal changes were made in time to have them recorded before the grades were sent in to the Registrar. Accordingly the following recommendation was submitted to the Faculty and after full discussion adopted, on May 6, 1908, that

"No department recognize any student as a regular member of any of its classes until registration in accordance with the following rules has been reported by the Dean to the department.

"1. Students registering in the College of Arts and Sciences for the first time shall hand in their study cards with list of courses for the term at the Dean's office on or before the third day of instruction.

"2. Two weeks before the end of each term students shall hand in their study cards with list of courses for the next term at the Dean's office.

"3. Changes may be made in the list of courses selected during the first ten days of instruction only, and then only with the approval of the Dean.

"4. After the first ten days of the term no student shall have the right to withdraw from any course in which he is registered, unless he shall previously obtain the consent of the Dean to withdraw from the course on the ground of ill-health or other reason beyond the student's control.

"5. A student whose marks average 85 or more in any term may register and receive credit for a maximum of 20 hours for the following term; a student whose marks average between 65 and 85 in any term may register and receive credit for a maximum of 18 hours for the following term; and one whose marks average 65 or less in any term may register and receive credit for a maximum of 16 hours for the following term.

"6. Students may not register for courses for which they are not permitted to receive credit."

The enforcement of these rules will correct some evils that grew up with the free elective system, and will tend to prevent carelessness on the part of some students who need to be protected against their own loose methods of study. The slight change made regarding the maximum credit per term should also tend to greater fairness in the administration of rules regulating credit hours and terms of residence.

BLOCK WEEK AND TERM EXAMINATIONS

A recommendation that "Block Week" be abolished and that final examinations be held on the last day of instruction, during the regular class period, was submitted to the University Faculty by the Committee on University Policy soon after the beginning of the second term last year. The recommendation was referred to the several Faculties for separate action, and by the Faculty of Arts and Sciences it was in turn referred to the Committee on Educational Policy for consideration and report. The matter was carefully considered in several sessions of the Committee, and as a result the following resolutions were submitted to the Faculty:

"1. *Resolved*, that the Faculty of Arts and Sciences favors the retention of Block Week.

"2. *Resolved*, that an examination or an equivalent exercise shall be held during Block Week for each course in this College.

"3. *Resolved*, that in courses where exemptions are permitted no student shall be exempt from the final examination whose mark on the class work of the course is less than 85."

The resolutions were adopted by the Faculty of Arts and Sciences after full discussion, with the hope that less irregularity may prevail in the attendance of students at the close of each term, and especially at the close of the first term of the year, and that the educative value of the final examination may be retained for all those who are in need of that stimulus and of the review of the subject which preparation for it naturally demands.

In order that the examinations under these rules may be conducted with a minimum of conflict, and for other important functions which such a committee can perform, the President was authorized to appoint a committee on schedule for the College of Arts and Sciences. Dean-Elect Hull and Professors Durham and Shearer were appointed as members of this committee.

CODIFICATION AND PUBLICATION OF RULES

On many occasions during the year students petitioned the Faculty for exemption from the operation of rules supposed to be well-known, on the ground that no public announcement of the rules in question had been made. The Dean, too, in taking up his work at the beginning of the year found it an exceedingly difficult matter to learn what old rules had been at some time abolished and what new ones had been adopted, some of the rules having been inherited from the former General Faculty and some of them having been passed by the Faculty of Arts and Sciences in recent years. Members of the Faculty and even members of the Committee on Academic Records often showed much confusion regarding what were supposed to be existing rules.

For these reasons and because a number of new rules were established during the session 1907–1908, it appeared advisable to have all rules of this Faculty codified and published for the benefit of both students and Faculty. A resolution authorizing the President to appoint a committee for this purpose was introduced into the Faculty by a member of the Committee on Academic Records. the resolution was unanimously adopted and Dean-Elect Hull and Professors Strunk and Willcox were appointed on this committee.

ARTS SUBJECTS FOR ENGINEERS

In considering the recommendations in the President's Report for 1906–1907 regarding the importance for students in the professional schools of English, history, economics and other subjects taught in this College, the Faculties of Civil Engineering and Mechanical Engineering were led to adopt five year courses, each course including over 70 hours in Arts and Sciences and at least 30 hours in literary and social studies. These courses are to be alternative courses, the former four year courses being also retained for the present.

Their action was made of especial interest to the Faculty of Arts and Sciences by virtue of the fact that the Engineering Faculties proposed to have the students entering the five year courses enrolled for two years in the College of Arts and Sciences and for the remaining three years in Civil or Mechanical Engineering. This proposal was referred by the Board of Trustees to this Faculty. It was not possible for the Committee on Educational Policy, to whom the courses were referred, to give adequate consideration to the matter before the close of the academic year, so that no final report was submitted to the Faculty but a report will be made and a definite policy decided upon early next year.

PUBLIC LECTURES

In pursuit of the policy followed in the session of 1906–1907 the Board of Trustees authorized the expenditure of $400 to secure public lectures before the College of Arts and Sciences for the year 1907–1908. The full amount was expended by the Dean in consultation with the Committee on Educational Policy, and under the provision of the Trustees the following lectures have been delivered during the academic year 1907–1908.

William Bateson, - - - Cambridge, England
Inheritance of Color in Animals and Plants

Otto Pfleiderer, - - - - Berlin, Germany
The Religious and Ecclesiastical Conditions, and the Principal Tendencies of Theology and Philosophy in Germany at the Present Day

Lucia Ames Meads, - - - - Boston, Mass.
National Defense

James Fitzmaurice-Kelly, - - London, England
Modern Spanish Literature

Barton Warren Evermann, - - Washington, D. C.
The Golden Trout

Thomas D. Bergen, A.B., - - - Ithaca, New York
Popular Songs of Naples

Adolf Meyer, M.D., - - - - New York City
Mental Hygiene and Ethical Development

W. Max Müller, - - - - - Philadelphia, Pa.
The Ancient Egyptians

William Archer, - - - - London, England
The Elizabethan Play House

Charles Ernest Pay, - - - - Tufts College
The Scenery of Mountains

George Brinton McClellan, - - New York City
Political Tendencies of the Day

Alfred Holt Stone, - - - Greenville, Miss.
Sectionalism and the Race Problem

Edward Ide, - - - - - New York City
Government Investigation and Regulation of Life Insurance

DELINQUENT STUDENTS

The action of the Committee on Academic Records in passing upon the cases of delinquent students is indicated in the following table in which the figures of the last six years are brought together for comparison:

Academic Year	Students dropped			Students warned or referred		
	First Term	Second Term	Total	First Term	Second Term	Total
1902–1903.....	15	1	16	37	13	50
1903–1904.....	21	12	33	17	20	37
1904–1905.....	23	20	43	18	10	28
1905–1906.....	21	16	37	20	18	38
1906–1907.....	18	15	33	42	48	90
1907–1908.....	21	21	42	24	21	45

Of the delinquents under the second heading "warned or referred," many were freshmen who had perhaps not yet adequately learned the methods or standards of work in the College as different from the preparatory schools from which they had come. The administrative board for freshmen and sophomores, whose establishment has been referred to earlier in this report, should be able to deal with some of these cases earlier in the term, and the result should be a better showing in this phase of the report in later years. The Committee has been slow to drop a student whose delinquency could be explained by lack of acquaintance with college work and college life, but the large number who failed to meet the standards established by the Faculty and were therefore "dropped," indicates that the Committee does not temporize with cases of deliberate negligence or inability to profit by instruction offered in the College. At the present time there seems little likelihood that the Faculty of Arts and Sciences will permit this College to become a loafing place or a refuge for incapables. The action of the Faculty in April last authorizing the Committee to drop students at any time in the term when their records demand that it be done, has already had a salutary effect upon the scholarship of the students, and will probably lead in the future to better records at the close of the term. Instead of leading to the dropping of more students, it will probably decrease the number of delinquents.

LEAVES OF ABSENCE

Following the practice of recent years the Dean has granted leaves of absence for causes that seemed to him justifiable. The number and classes of causes assigned by the students are given in the following list, along with the corresponding figures for the five preceding years:

LEAVES OF ABSENCE GRANTED, 1902–1908

Ground	1902-3	1903-4	1904-5	1905-6	1906-7	1907-8
Personal Illness	136	117	56	48	37	151
Illness or Death in Family	55	02	31	30	22	37
Request of Family	155	22	14	5	4	25
Wedding	29	20	18	13	7	14
Business Summons	48	67	42	32	23	48
Delegate to Convention	24	20	19	1	—	5
Voter	43	11	61	6	1	9
Department Excursion	27	60	29	7	7	6
Examinations	—	20	22	2	6	3
Missed Connections	—	34	6	—	—	3
Miscellaneous	79	23	11	11	24	8
Total	596	456	309	155	131	309

In closing this report I beg leave to express my appreciation of the splendid spirit which prevails in the Faculty of Arts and Sciences and my personal obligation to the standing committees of the Faculty who have shared the work of the Dean with a patience, interest and good judgment that made difficult work most enjoyable, and that will always make the year of 1907–1908 one of pleasant memories.

Respectfully submitted,
A. Ross Hill,
Dean of the Faculty of Arts and Sciences.

APPENDIX IV

REPORT OF THE DIRECTOR OF THE COLLEGE OF LAW

To the President of the University:

Sir:—I have the honor to submit the report of the College of Law for the academic year 1907–1908.

The death of Judge Finch in July, 1907, deprived the College of one of its oldest and most devoted friends and of a teacher who for many years had inspired students from the wealth of his legal learning, the breadth of his culture and the grace and force of his powers of exposition. The valuable course of lectures heretofore given by him on the history and evolution of law was necessarily stricken from the curriculum as it was manifestly unwise to attempt to continue it under any other professor.

In other respects all the courses announced have been given regularly, and down to this time no member of the Faculty has failed to meet his classes at every hour assigned.

Professor Alfred Hayes, Jr., has conducted the courses in torts, equity jurisdiction and constitutional law with great success. He has won the admiration and regard of all his colleagues in the Faculty and of the students. The course in bills, notes and checks, heretofore given by Professor Huffcut, was given during the first term by Mr. Colson with such success that it has been determined that he shall remain in charge of that course.

Judge Alfred C. Coxe, who has for so long given the course in admiralty, tendered his resignation because of the increased pressure of duties on the Circuit Court of Appeals. It was with great regret that the Faculty realized the necessity of losing his services and of severing relations with him as a colleague. Judge Coxe's letters have evinced a continuance of his interest in and friendship for the College, and it was largely through his advice that Judge George C. Holt, United States District Judge for the Southern District of New York, was invited to become his successor. Judge Holt has given the course in admiralty this year. The lectures were attended throughout by almost every student and were received with marked approval.

Judge Gunnison was unable to return from Alaska and give the course in bankruptcy. It was given by Mr. William H. Hotchkiss of the Buffalo bar, who has, ever since the passage of the present "Bankruptcy Law," been a referee in bankruptcy, who has edited the later editions of the text book in general use, and who, by his careful study and suggestions, has contributed greatly to the perfection of the law by amendments. The course as given by him proved very valuable.

Several special lectures were given during the year. Judge Hiscock, our honored Trustee, delivered during the first term a timely and suggestive address on "The Police Power." During the second term a course of four lectures was given on practical problems which present themselves to one about to commence the practice of law. For this course were selected graduates of the College, most of them graduates of recent years. These lawyers, speaking from recent experience and from a recollection of their own problems as the close of their law school course approached, accomplished the purpose of the course by aiding the students in solving critical questions concerning the choice of a location and equipment for the particular duties which will confront them upon their admission to the bar. To all those who have lent their assistance in this way, the Faculty desires to express its obligations.

The registration in the three classes since the full three year course was in operation is shown by the following table:

Year	Seniors	Juniors	First Year	Special	Total
1899–1900	52	61	61	4	178
1900–1901	45	52	78	7	182
1901–1902	34	71	86	7	198
1902–1903	48	77	95	5	225
1903–1904	53	76	109	3	241
1904–1905	58	80	86	4	228
1905–1906	65	69	83	4	221
1906–1907	51	70	89	1	211
1907–1908	48	68	85	5	206

In addition there have been registered 25 students from other Colleges of the University, nearly all from the College of Arts and Sciences. This number is exactly the same as last year. The greater number of these students from the College of Arts and Sciences expect to continue the study of law as a profession, but a few pursue certain courses, chiefly that in contracts, as a preparation for commercial pursuits. The courses now given are all extended courses designed solely to meet the needs of those intending to pursue the practice of law, and are not adapted to students who desire a general knowledge of the fundamental branches of law for cultural purposes, or as an aid in other vocations. There has been for some years a demand from the Engineering Colleges for briefer and less technical courses in contracts, torts and property, and students in the College of Arts and Sciences should be offered like general courses in these and other subjects. It is recommended that provision be made as soon as practicable for courses of the character indicated for the benefit of students in other Colleges in the University.

Of the 206 Law students 63 came from outside the State of New York. Last year there were 62 and in 1905–1906, 57.

The number of students in attendance May 1, 1908, was 180. Of the 26 registered and no longer in attendance, two transferred to the College of Arts and Sciences, 11 voluntarily withdrew, 12 were dropped for failure in work and one completed his course at the end of the first term and was given a leave of absence.

A year ago a radical change in the four year course was announced. In the past the greater part of the work of the students in that course has been each year in the College of Law. The change consisted in placing in the first year of the four year course a single Law subject, torts, and in requiring students in that year to take 12 hours a week of work in the College of Arts and Sciences. Elementary economics and English history are required subjects and the remainder of the Arts work is elected with the advice and approval of the Dean. The largest number entering the four year course in any previous year was 8. This year 24 registered. This increase confirms the statement in last year's report that there seems to be "a growing sense of the desirability of some kind of college work prior to the pursuit of professional study." Other facts lend emphasis to the statement. Of the three year Law students in their first year, 11 transferred from the College of Arts and Sciences after one or more years of work in that College and nine others entered after having one or more years of academic work in other institutions of collegiate rank. Five have the A.B. degree. Altogether only 39 members out of 89 are pursuing the first year Law work without previous Arts study. Furthermore, two students who registered for the three year Law course transferred to the College of Arts and Sciences with the expressed intention of pursuing one or more years of work there and then resuming the study of law, and four others, expressing to the Dean their sense of inadequate preparation, have consulted him as to the practicability of transferring at the close of their first year of Law study for a year or two of work in Arts. The growing realization by the students themselves of the inadequacy of a high school course as preparation for professional study, and the conviction of the Faculty that further preparation is desirable led to the statement in the announcement for next year, just published, that "applicants who have not had at least two years of college work leading to an A.B. degree, or to some equivalent degree, are strongly advised to pursue the four year course." The entire Faculty hope that this advice may soon become a requirement.

The discipline of the College has been well maintained. Students have been almost uniformly regular in attendance and attentive to their tasks. They have heartily cooperated with the Faculty in its efforts to render efficient the work of the College. The so-called "honor system" was adopted in January, 1907, on the initiative and at the request of the students. While perhaps it is still too soon to pronounce conclusive judgment upon its merits the Faculty is convinced that so far it has produced good results, and that so long as the students maintain it in their present spirit it is desirable that it should be continued.

In these days when it is generally thought that the ranks of the profession are overcrowded, and that the young lawyer must wait a long time for employment, it is gratifying to note that the graduates of the College seem readily to find acceptable opportunities. During the year the Dean was several times compelled to answer inquiries for men by stating that he knew of no graduate of the school who desired the proffered position.

The report of the librarian is herewith submitted. It will be observed that the funds available have permitted little except the continuation of series already commenced, with such additions as seemed absolutely necessary. I beg leave to direct attention to the work pursued by the librarian in collecting the statutes of the various states. He has carried this work on with the skill and intelligence which have characterized all his efforts. A comparatively small appropriation would now permit its completion. The library will not be properly equipped for research work until this collection is complete. The difficulty of obtaining the remaining books and the expense of obtaining them are continually increasing as other institutions realize the importance of such a collection and undertake the same work. I earnestly hope that the recommendation of the librarian for an opportunity to complete the collection be favorably considered.

Respectfully submitted,

Frank Irvine,

Director of the College of Law.

APPENDIX V

REPORT OF THE DIRECTOR OF THE MEDICAL COLLEGE

To the President of the University:

Sir:—I have the honor to present the following report of the Medical College for the year 1907–1908.

The important event of the year was the action of the Trustees directing that beginning with 1908–1909 no one shall be admitted to the school as a student in preparation for the degree of M.D. but graduates of certain accredited colleges and universities; and that for the ensuing year even such graduates shall not be admitted unless they are also proficient in inorganic chemistry and physics. Apart from the time gained in eliminating these two subjects from the schedule it is expected that a better educated class of students will enable us to modify our system of quizzing, so that fewer instructors may be needed. These changes constitute a fit beginning for the second decade of the school.

The completion of the first ten years of our existence warrants inquiry as to how much we have accomplished in justification of the public spirited generosity which prompted the creation of this College and the munificence which the founder has unfailingly exhibited towards it.

About the period of the foundation of the school it had become conspicuously evident that the proper place for the successful nurture of medical education was that assigned it at the beginnings of organized institutions of learning, that is, within the folds of the university as one of its coordinate colleges. The fact that Cornell accepted the gift of an entire medical school and placed its stamp upon it insured prestige for the College at the outset. The manner in which this was done by the University exemplified anew the wisdom which has been so conspicuous in the direction of its affairs. The leading work in medicine was established in New York City, but it duplicated the first and second years of the course at Ithaca. This gave the school a closer touch than was possible without it, seeing that the main body was so far removed as this city. It made us an integral part of the University in fullest sense, in that it afforded the opportunity for combined courses in Arts and Medicine, redounding greatly to the benefit of the latter, since it gave opportunity to pass directly into the Medical school students upon whom had been placed the stamp of a liberal education. The advantage to us has been conspicuous in the standing taken in New York by the students from Ithaca, who have completed here in the third and fourth years the Medical course essential to graduation. Presumably this plan of organization has attracted to the University students who, intending to pursue medicine, wished a course in Arts before beginning their life's work.

We now have both at Ithaca and New York, a compact, well organized and efficient corps of teachers—they have developed a system of instruction notable for its practical efficiency and thoroughness. Our laboratories have won a name for us, especially in the department of pathology, second to none in this country, and we find that our graduates in competition in hospital examinations and before state boards, with graduates from any or all medical schools of the country, stand amongst the foremost. This result can be accepted as a fair index of their future as practitioners, or as workers in the more exclusively scientific fields of medicine.

We have had the good fortune to carry on this work (with three exceptions) with practically the same Faculty. Professor Flint's retirement to the post of emeritus professor of physiology has already been noted in the report of last year. Professor Kerr has likewise noted the retirement of Professor Gage to the post of emeritus in the department of histology and embryology, and now I deeply regret that in this report I have to chronicle the death of the head of the department of materia medica and therapeutics.

Professor Loomis died suddenly of pneumonia December 22, 1907, having conducted the affairs of his department most efficiently up to within five days of his death. In order to meet the emergency thus forced upon us, Assistant Professor Hatcher was advanced to the position of professor of materia medica and pharmacology. Professor Coleman and Professor Conner carried on the lectures on materia medica and therapeutics as planned for the remainder of the session. The clinical lectures and section teaching which had been done by Professor Loomis were completed by Professor Connor, Professor Coleman and Professor Nammack. While the vacancy created by this death has been in part met by the assignment of Professor Hatcher to all that portion of the work of this department covered by materia medica and pharmacology and by the assignment of the clinical work to Professors Conner, Coleman and Nammack, therapeutics presents to us a more difficult problem. It is now necessary to deal more broadly with this subject than medical schools have heretofore done. It is imperative not only that instruction in therapeutics should cover the remedial action of drugs but that all substances or elements as well as methods employed in the treatment of disease should have a more thorough and systematic presentation than prevails in any of our schools. The course must cover serum therapy, hydro-therapy and massage, psycho-therapy and electricity. Each and all of these agents are now so prominent as remedies and have been in consequence so developed, it is doubtful if when added to drugs, as remedial agents to be known by the graduate in medicine, they all can be properly presented by one head; but that each should be dealt with so as to give the student a working knowledge of them all is becoming an increasingly pressing necessity in any scheme of medical education. This means an adaptation of the plan of instruction which prevails in the presentation of the therapeutical uses of drug remedies, to all remedies no matter what their source. The Faculty at its last meeting appointed a committee to consider this question, and we hope ultimately to have a comprehensive and feasible plan, by which the now very broad subject of therapeutics may secure adequate presentation in our course.

The chair of physiology remains unfilled, but as soon as arrangements, now in progress, for fuller laboratory facilities are completed we hope to have it occupied by a head in keeping with the purposes of the school. Meanwhile, Assistant Professor Hartwell, who desires more time to devote to surgery, will continue the lectures, demonstrations and quizzing as in the past year. Under an arrangement recently perfected this subject has been placed entirely in the second year, surrendering to anatomy the time heretofore occupied in the first. By this transfer much the greater part of anatomy is concentrated in the first year.

For the coming year no change is made in the program of the department of chemistry and physics but I desire to call attention to the admirable work done by Dr. Wolf and Mr. Osterberg particularly in metabolism, for details of which plan I refer to Professor Witthaus' report.

I beg to call special attention to the report from the department of pathology. A laboratory course in comparative morphology will be a feature of the studies in histology in the future. Publications, soon forthcoming from the sub-department of bacteriology under the direction of Assistant Professor Elser, will undoubtedly attract widespread attention to the school as a prominent seat of bacteriological thought and work. The sub-department of pathological anatomy, under Assistant Professor Schultze, continues to present to a very rich collection of gross pathological material, the proof existing in the fact that the present graduating class has during its course with us seen the material from about 600 autopsies, in addition to surgical and museum specimens. The activities of the pure research workers in the sub-department of experimental pathology are reported as steadily enlarging and "the fundamental character of the studies pursued has gradually attracted general recognition." Quoting more fully from Professor Ewing's report, "This result is the logical outcome of strict adherence to University standards in research. None of our staff has been urged to publish anything until ready, and has been encouraged to pursue themes regardless of the immediate outlook for results, some of these themes, as thyroid therapy, have required an outlay of many thousands of dollars and the united activity of five or six persons. I can assure the Faculty and Council that within a year we shall be able to fully justify this financial and moral support, and to demonstrate that Cornell University has established new standards of research. The time is passed in many fields when individual workers can reach important results single-handed. Many men and much money may be required to bring a problem to a definite solution, and I am not aware that any other American institution has recognized this fact and provided to a similar extent men and money for the pursuit of an important problem in hand. The review of the progress of thyroid therapy by Drs. Rogers and Beebe, now in press, will indicate to some extent the justification of this claim. It will be further justified by other studies on the physiology and pathology of the thyroid and parathyroid glands and in the general therapeutic application of thyroid and parathyroid products on which important data have been secured. Dr. Buxton's studies on the physical chemistry of agglutination are of first importance but too technical to attract general attention. The work of the Huntington Fund for Cancer Research has progressed under the immediate direction of Dr. Beebe, assisted by Drs. Buxton, Weil, Shaffer and myself. A definite stage of the work on a sarcoma of dogs was reached when the tumor nature of this process was established and the tumors were made to disappear by direct transfusion of the blood of immune dogs, and by the inoculation of standardized prodigiosus toxins.

Other lines of theoretical and practical interest have been pursued, some of which are described in the 2nd Report. 1908, of the Huntington Fund, which contains 14 contributions. Dr. Stockard will be added to the staff next year. I believe that the trustees of this Fund are well satisfied with the results of their association with this department and wish to continue it. We are hoping to secure hospital facilities for the clinical study of cancer." Concerning the needs and future development of this department Prof. Ewing says, "The needs and deficiencies of the department are numerous and definite. We need the remodeling of the facilities for teaching pathological anatomy and for storing museum specimens. We shall need room to give each student entering under the new curriculum a table and apparatus for working up pathological material. In the future one might hope to have closer affiliation with other general and special hospitals, a relation which would work to the mutual advantage of both laboratory and hospital. Without any more expense in money and without any greater exertion on anyone's part vastly more progress might be made in the pathology of the specialties if such relations existed. We need a larger number of workers in the pathology of general medicine, surgery, and the specialties, and the recognition in the University of the German university principle, that advancement in clinical work can come only to those who have served apprenticeship in the laboratories.

"We need especially centralization of all the laboratory forces under one roof, using one central library, each readily available for the needs of the other, administered with a view to economy in money and energy, and combining when necessary in the pursuit of one theme. This is regarded as the chief need of this department and the chief hope of the future of research and instruction in the other laboratories, and in my judgment it can be met satisfactorily only by an addition to the present building. In the past unusual difficulties, not experienced by our competitors, have constantly arisen owing to the isolation of parts of our working forces. There has been urgent need of hospital facilities for the study of certain diseases, as exophthalmic goitre, epilepsy, typhoid fever, eclampsia, etc., but this need has been met under considerable difficulties by the cooperation of Drs. Thompson, Coleman, Conner and Edgar, in their wards at various hospitals. I believe that the extension of this method is the best practical immediate solution of this difficulty but it is obvious that there is no limit to the possible use of well endowed general and special hospitals working in cooperation with University laboratories. From the present tendency to build isolated laboratories in numerous small hospitals there is little to be hoped other than the better use of already existing knowledge of diseases.

"I would refer again to the advantages the department has enjoyed through the cordial cooperation and community of interests established with other departments, especially with the department of chemistry. Thus far the research forces of the College have been working almost as an harmonious unit. I have repeatedly been told by colleagues in this and other cities, that this relation is everywhere recognized as one of the strongest features of Cornell. As the time comes for the development of other departments I would express the hope that care be taken to preserve this delicate balance in the personality of the laboratory forces, and that no strange or disturbing factor be introduced."

Could the suggestions embodied in this report, concerning a separate building in which all our laboratories with their libraries might be housed, be realized, the spirit of cooperation and devotion to work now so well established with us would insure results toward the advancement of medical science and art second to none that might come from any other institution. I desire to call attention to the economy in time which would be secured, lessening the number of workers required; this with the saving in maintenance would insure a material diminution in cost in that which is the most expensive department of any medical school.

I also desire to call special attention to the report from the department of medicine, which covers that of clinical pathology. A close and widespread cooperation of the department of medicine with all departments of the school is an absolute necessity. Dr. Thompson shows that excellent progress in that direction is being made. To that end Professor Hastings, head of the department of clinical pathology, has been placed as assistant visiting physician to Bellevue Hospital. In order to prevent, as far as is advisable, the too frequent reduplication of clinical demonstrations on the part of section teachers, Professor Thompson proposes to establish a "clearing house" system whereby each instructor shall be required to report at the close of each section period the ground covered and the number and nature of cases presented. The following is a list of the researches conducted during the year:

With Dr. Wolf of the department of chemistry, dietetic and nutrition experiments in cases of obesity.

With the department of pharmacology, use of new preparations of strophanthin and thiosin in a number of cases of heart disease. Results satisfactory.

With Dr. Beebe, exhaustive study of nutrition and the effect of therapeutics in pernicious anaemia, and a number of cases of exophthalmic goitre treated with serum.

Through Dr. Hastings, tested tuberculin opthalmic reaction in some 60 odd cases; also typhoid fever ophthalmic reaction; curative use of tuberculin in cases of glandular and bone tuberculosis tested; tests of the Wright method of opsonic vaccines in cases of septicaemia, with striking results.

Through the Health Department and department of Bellevue Hospital, tetanus antitoxin has been used, blood cultures, etc., for diagnosis in cases shown students.

Dr. Coleman made researches of value in diet in typhoid fever, in study of para-typhoid with Dr. Buxton.

In the Dispensary Dr. William Armstrong has continued the study of gastric analyses and has given several demonstrations before the class.

Dr. Searing has continued the serum treatment of about 20 cases of exophthalmic goitre.

At the Presbyterian Hospital the class has been shown the use of vaccines in malignant endocarditis, and the use of Flexner serum for the cure of cerebro-spinal meningitis.

Dr. Coleman has experimented at Bellevue Hospital with the serum treatment of pneumonia.

The remaining departments each report satisfactory condition. But pediatrics finds itself hampered because of lack of hospital facilities. Being without control of beds in any hospital which cares for children, for the present we are unable to meet this deficiency.

I must also report that the department of psychopathology does not receive at our hands the opportunity it requires. This has been mainly due to the lack of hours available for instruction, and again suggests the propriety of extending the course another year. The increasing demand for a more finished product in the graduate of medicine, if it continues, will force this step upon us sooner or later. We may meet it by at least offering an optional additional year, to be devoted to the more specialized divisions of medicine and surgery. This applies with peculiar force to neurology and psychopathology. Fortunately we have the assurance of greatly increased facilities in these two departments in the extension of Bellevue Hospital and the creation therein of an enlarged psychopathic and neurological service. Properly organized it should furnish opportunity unequalled in this country for the study of disorders of the mind and nervous system, especially acute and transient insanity. In this connection it is important that we increase in our own dispensary facilities for the treatment of the many cases on the border line, which are to be met with all too frequently in homes rather than in hospitals or asylums.

A fitting conclusion to this report is presented in the subjoined summary:

Total No. of students for ten years	3497
Total No. of graduates	582
Total No. of graduates securing hospital appointments.	416

Respectfully submitted,

Wm. M. Polk,

Director of the Medical College.

APPENDIX VI

REPORT OF THE SECRETARY OF THE ITHACA DIVISION OF THE MEDICAL COLLEGE

To the President of the University:

SIR:—I have the honor to present the following report of the Ithaca Division of the Medical College for the academic year 1907–1908.

The registration in the Medical College was this year 65 students, of whom eight were also registered in the College of Arts and Sciences as candidates for the A. B. degree. The total number of students, therefore, is the same as last year, while the number taking the combined course was increased from five to eight. In addition to those studying Medicine, there were in attendance in the department of histology and embryology, 28 students from the Veterinary College, 16 students in Arts and Sciences and three graduate students, while in the department of physiology, there were 33 students from the College of Arts and Sciences, 19 from the College of Agriculture, and four graduate students, the total number of individuals receiving instruction in Stimson Hall being, therefore, approximately 144, with a total registration in all courses of 593 students. Many of the students from the College of Arts and Sciences, thus registered in Stimson Hall, are either prospective Medical students or possess a more or less direct interest in medical science.

The curriculum as followed this year has been the same as last. As has been stated in previous reports, it is greatly overcrowded and yet additional work next year in certain subjects is urgently called for. With the requirement of physics and inorganic chemistry for entrance, which will be in force year after next, a remodeling of the curriculum will be called for and the congestion and certain illogical sequences in the present course of study can doubtless be obviated.

The instruction in the various departments of the Medical school has been carried out with energy and enthusiasm on the part of the teachers, and fine perseverance and application on the part of the student body, with excellent results.

In the department of anatomy there has been the customary attendance in the required courses, while four students have taken advanced work. The instruction has progressed smoothly, "the work of the students has been made more independent and the spirit of investigation has been fostered more strongly. In addition, the recitation work upon systematic anatomy has been concentrated in optional courses which have received the appreciation of the students." Dr. Kerr heartily commends the work of the staff. Dr. Schaeffer and Instructor Baldwin have devoted themselves to the department with untiring energy and in addition have done some excellent research. The work of Dr. Hathaway and Dr. Wright has been excellent and Drs. Pease and Prince have been faithful and painstaking in their teaching. Four of the instructing staff, however, were not devoting their entire time to the work of the department and Dr. Kerr regrets that sufficient compensation is not available for the securing of men who are making anatomy their life work.

The attendance in the courses offered in the department of histology and embryology has been 101 during the present year. Due to the resignation of the first assistant, Dr. E. A. Reed, and in view of his retirement at the end of the year, that he might not determine for his successor the assistants he should have employed, Professor Gage has conducted the work of the department with the help of men who were not devoting their whole time to the department. While they were capable and faithful, the limited time and energy they could give has made it necessary that detailed oversight of the work of instruction devolve upon Professor Gage.

Through the retirement of Professor Gage from the work of teaching, for the purpose of devoting himself exclusively to research, the Medical Faculty will lose a member of great force of character, honesty of purpose, and unfaltering devotion to high ideals of scholarship; the students, a teacher of wide experience whose clearness of presentation and enthusiasm will be difficult to replace. His cooperation will be greatly missed. He retains, however, his private laboratory in Stimson Hall, and while it would be an imposition to claim his ever-ready help and counsel as freely as in the past, it is a satisfaction to know that an adviser of so extensive experience and sound judgment is close at hand, while the example of devotion to research will be an inspiring one for teacher and assistant.

In his last report, Professor Gage offers some suggestions as to the future work in the department over which he has so long presided, that will be markedly helpful for his successor. For the Medical school as a whole, he urges a more carefully worked out curriculum in which there is more coordination and less concentration of subjects and an instructing staff devoting their entire time to the branch they teach, which they intend to make their life work.

In the department of physiology and pharmacology, the attendance this year has been greater than ever before; 113 individuals have received instruction, the total registration in all courses being 241. The work has progressed with smoothness and the teaching has been conducted with energy and enthusiasm on the part of both students and instructors. The work of the assistants in the laboratory has been very satisfactory. Dr. Dresbach, as instructor, has proved himself an excellent laboratory worker of high ideals. His devotion to the welfare of the department and his appreciation of original work fully merit recognition which I hope may be accorded him soon.

In the instruction of Medical students in physiology, the plan of closely coordinated recitations, demonstrations and laboratory work has been employed in the major course as last year and the value of carefully arranged laboratory work in physiology becomes more apparent each year. A closer correlation of the course on metabolism with the work in physiological chemistry is desirable and doubtless will be possible when the schedule is remodeled. The arrangement of rooms used in the department is now fairly satisfactory, although the problem of a demonstration room is still unsettled. The shop room in the basement has been exceedingly useful. A mechanic for the department is much needed. The equipment for instruction in experimental physiology is quite good, but there are still some gaps in the equipment for demonstration and research that need to be filled.

Half of the students registered in the department of physiology were from outside the Medical College. The increasing number of such students indicates the demand that exists for the adequate instruction in human physiology as a basis for an appreciation of the laws of health and as a preparation for secondary school teaching. The course as given needs extension with the incorporation into it of carefully selected laboratory work. At present, both the equipment and instructing staff are inadequate for the proper development of this important side of the work in physiology.

The work in pharmacology has been carried out by Dr. Wilson and Dr. Dresbach along the lines laid down by the professor in charge, and has been quite satisfactory. Dr. Dresbach conducted the course on the physiological action of drugs, while Dr. Wilson had charge of the instruction in materia medica. Pharmacology is one of the youngest (as well as oldest) of the medical sciences, and constituting, as it does, the foundation study for therapeutics, its importance is being more and more recognized. The increased amount of instruction that is being devoted to it in the New York division of the Medical College and elsewhere, requires that more ample provision be made for it at Ithaca. Pharmacology is one of the "pure" sciences in medicine, though closely touching the practical branches, and it can be adequately dealt with only by one who devotes his entire time to the subject as his life work.

The work in the department of bacteriology and pathology has been conducted with the success that has been its marked feature in past years. Sixty-one Medical students were registered in the courses in general pathology and bacteriology and have on the whole done good work. Dr. Moore speaks in the highest terms of Drs. Burnett and Taylor, who have assisted him in the instruction of Medical students. The pathological material available in the department has been steadily increased so that at present there are about 1,000 specimens in gross pathology and 365 series of slides for the study of pathological histology.

Eleven published articles have appeared from this laboratory this year and of these Dr. Moore has contributed eight, Dr. Burnett two, and Dr. Taylor one.

The work in medicine, obstetrics and surgery has been given as heretofore with satisfactory results.

With the beginning of next year the Medical College, under the advanced requirements for entrance, enters upon a new era of great possibilities. It is hardly necessary to state that the Faculty at Ithaca welcome the change although it will mean greater responsibilities for all.

The practical impossibility of obtaining suitable assistants for the salaries available has been mentioned in previous reports and in the future the difficulty will be even greater. It will be necessary to secure men who are capable of advancing the sciences to which they are devoting themselves and they must be given opportunity to do so. This means better remuneration and more leisure for research, and it is only under these conditions that such men can be secured and retained. The facilities for advanced work in the three major departments of anatomy, histology and physiology are good but here, also, additional equipment is needed. I cannot too strongly urge that the means be provided for putting these sciences, fundamental in biology and medicine, on a sound university basis, as the heads of the departments will be expected to maintain the position of preeminence that the Medical school has elected to fill.

By no means second to the maintenance of a high standard in research is the demand for adequate instruction, and in the working out of the future curriculum the responsibility for success rests with the Faculty.

Stimson Hall possesses a most beautiful and commodious library room, and the Medical College is constantly receiving donations of books and periodicals. There is, however, no provision as yet for the care of the books so housed, or regulations governing their use. There is urgent need of some plan whereby this most valuable adjunct of medical laboratories may be properly cared for. Either a librarian might be on duty at stated times, or there might be a clerk of the College who would be officially appointed and also be made responsible for the care of the library.

Technicians such as are in the service of the departments of physiology, histology and anatomy elsewhere, are necessary for the work of these departments in Stimson Hall. As has been set forth in previous reports, a mechanic is necessary for the repair and construction of apparatus in the department of physiology, while a preparator is indispensable for the best work in histology.

As a whole, the Medical College at Ithaca has passed through a year of steady growth in all departments. For its future work, however, additional assistant professors and instructors are needed, and it is sincerely hoped that provision for them may be made in the immediate future.

Respectfully submitted,
B. F. KINGSBURY,
Secretary of the Ithaca Division of the Medical College.

APPENDIX VII

REPORT OF THE DIRECTOR OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

SIR:—I have the honor to present the report of the New York State Veterinary College for the year 1907–1908.

ATTENDANCE

The two years (1906–1908) have fully justified the prediction that the sudden drop in the numbers of the freshman class in 1905, consequent on the increase of entrance requirements, would be quickly repaired. The class matriculating in 1905 numbered 19 only, while that of 1906 was 32, and that of 1907 was 35, nearly doubling the minimum class of two years before. The small freshman class of 1905, represented by the seniors of the present year, still tells seriously on the total numbers of the regular Veterinary students, (86 for the three classes), and, but for that, and estimating from the matriculants of the past two years, the total attendance would compare favorably with the best year we have yet seen—(1904–1905).

In addition to the Veterinary undergraduates we have had two veterinary practitioners taking work in the College, and 230 from the Colleges of Agriculture and Medicine taking work in the departments of physiology, general pathology, pathology of infectious diseases and laboratory diagnosis and in veterinary medicine, making a grand total of 322 students.

This strongly accentuates the demand for better teaching facilities and a more roomy auditorium as predicted in my report of 1907.

It further implies that our long cherished purpose of extending the Veterinary course to four years is now at last virtually within our grasp. Such a step will necessitate some increase of the Veterinary instructing staff, though for various subjects, such as organic and physiological chemistry and toxicology, botany, cryptogamic invasion of fodders, invertebrate zoology, sanitation of soils, buildings and water supplies, and legal veterinary medicine, University courses may be drawn upon.

DEPARTMENTAL WORK

In anatomy the grade of instruction has reached a very high level, the higher general education of the matriculants enabling the students to do work of a better quality. Existing accommodations have been seriously taxed with 59 students working in the dissecting room at one time, and as soon as possible new equipment should be provided. Anatomy lies at the very foundation of all scientific medicine, and any deficiency here must seriously handicap the student throughout his whole future career. Dr. Hopkins feels strongly the need for more advanced and necessarily higher priced assistants who would not be distracted by their own college work as must senior student demonstrators. Exceptionally very able undergraduates can be secured, who after graduation could not be persuaded to give themselves to this work, but otherwise better results can be had through instructors who give their whole minds to the subject. A dark room for photographic work would be a valuable addition to the plant and could be provided at no great expense in the space provided for the elevator.

In physiology and pharmacology Dr. Fish reports a most successful year, but requires additional apparatus to meet the needs of the growing classes of students. Beside the regular Veterinary students, the class in physiology has attracted 36 students from among Agricultural undergraduates. Special researches have been carried on in the physiological action of drugs, and one student has presented a thesis on personal investigations into the action of phytolacca in the horse. Dr. Fish presented a valuable paper at the meeting of the American Veterinary Medical Association on "Veterinary Education in Europe" and the same appears in the proceedings. He has also issued the third edition of his work on "Veterinary Doses and Prescription Writing." For some years Dr. Fish has taken the main charge of the clinic for small animals, and this year, especially during my illness, he has conducted the medical clinic for large animals as well. If in the reorganization of the College it is decided to follow a common practice in Europe of entrusting the small animals clinic to the professor of pharmacology, his successful experience in this line would assure us that the confidence would not be misplaced.

In pathology and bacteriology the high quality of the work done in previous years has been more than sustained. The success of this department alike in educational work and in extra-collegiate service, in the line of laboratory and field diagnosis especially, has amply justified the liberal equipment with which it was provided from the first, and it stands out in its own field as a striking example of what may be accomplished by skilled and judicious application of a generous appropriation. Beside the regular Veterinary students the department has given instruction to 64 Medical students in the present year, while outside the field of instruction proper in response to calls from the State and private parties, it has made laboratory diagnoses of diseases in 342 animals, it has made and distributed 28,790 doses of tuberculin, 620 doses of mallein, and 9,180 doses of anthrax (so called) vaccine. It has besides, in the current year, conducted an elective course in differential laboratory diagnosis, pathological technic and blood examination, which has been adopted by seven seniors as a substitute for a thesis and with eminently satisfactory results. Dr. Moore has besides found time to prepare for publication seven papers, lectures and bulletins and a second edition of his work on " Pathology and Diagnosis of Infectious Diseases." Dr. Burnett has published a paper on "Anthrax" and a book on "The Clinical Pathology of the Blood," while Dr. Taylor has produced a paper on "Diagnosis by the Agglutinating and Precipitating Power of Glander Serum." Dr. Moore feels that to meet the needs of the increasing classes and the growing demand for services outside the College it is imperative that at least one more skilled assistant should be provided, together with a material increase of apparatus, a post-mortem room for pathological uses, and an experimental farm where questions in pathology and prophylaxis can be practically and conclusively determined.

In surgery, zootechnics and obstetrics the year has been a very successful one. The valuable assistance of Dr. Frost has convinced the professor that his tried and approved service should be secured for next year at an advanced salary. Dr. Williams is urgent for a new operating room with better appointments, also for a team and wagon to reach outside cases, especially obstetric ones. Notable in the work of the year has been the improvement in the technic of the operation for roaring, which is now accepted as superior to anything hitherto done in this line, and restores to usefulness the great majority of the superior animals formerly lost through this infirmity.

In veterinary medicine, parasitism and farriery excellent progress has been made, the more thorough preparation of the entering student enabling him, here as elsewhere, to take a more comprehensive grasp of the subjects treated, and to better fit himself for the practice of his profession. Seven students have prepared theses in the subjects of this department. As president of the American Veterinary Medical Association I prepared an address for the annual meeting, giving a review of the present status of veterinary education in the country and the demand of the times for a general improvement. An article bearing chiefly on veterinary sanitary science was furnished to the Encyclopædia of Agriculture.

In the reorganization that must follow my retirement, due attention should be given to furnish an equipment equivalent at least to that which has been provided for every other department in the College, an equipment which will enable my successor or successors to do justice to the work placed in their hands. It is unfortunate that this cannot be provided for the year 1908–1909, so that each new instructor would not be doomed to that discouragement which must attend on inadequate means. Recognizing the impossibility of this, it should now be the fixed object of the Trustees to see that no new outlay should be made for any other department, in addition to the maintenance expenses already provided, until ample provision shall have been made for veterinary medicine, parasitism, horse shoeing, and veterinary sanitary science. If the legislature provides in the coming year $40,000 for the purpose of putting these subjects on their feet, it will be well; but if not, every available surplus should be husbanded to be devoted to the building up, little by little, of these subjects which have been hitherto ignored in the distribution of the funds.

VETERINARY SANITARY ADMINISTRATION IN NEW YORK

As this last subject has been a very prominent feature of my life work, I may here add a word on its present condition in our own State. After eleven yearly protests, in my reports to the Governor, setting forth the futility of the existing law as administered, and after the enactment of a series of amendments, which showed clearly the hand of the stock dealer rather than the sanitarian, the legislature last year empowered the Commissioner of Agriculture to put a stop to the constant stream of tuberculosis from without which had steadily planted numerous fresh centres of infection in our bovine herds. But we have waited in vain for some evidence of the application of the new statute, and to all appearances it has remained a dead letter.

The result of a continuance of a vicious system, which I have steadily denounced as a means of infallibly extending the area and increasing the intensity of tuberculosis, has been to increase the prevalence of bovine tubercle in fifteen years from 11 per cent to 33 per cent as shown by the best statistics available, official and otherwise. This is not alone because the tuberculous animals in shipment arriving in the State have been systematically reserved to send into our New York dairies while the sound cattle, being eligible for admission to adjacent states, have been sent there, but there has also been a steady advance of the disease in our own State owing to the following: The increase in number and size of our dairy herds; the adoption of a habit of selling cows that are failing in their yield of milk, owing to the interval since calving, and replacing them by fresh cows from herds which are in too many cases infected; this great increase in traffic in dairy cows without any sanitary supervision involves a growing exchange of tuberculous animals and the more frequent introduction and diffusion of disease in herds; the great extension of the use of the separator and the return of the uncooked, unsterilized skim-milk to be fed to, and to infect calves and pigs, thereby planting more and more new centres of disease; the steady introduction into dairy herds of thoroughbred bulls (and cows), drawn from herds of high individual value and therefore preserved for breeding, sound or unsound; the lack of attention to the conveyance of infection from cow to cow and from herd to herd through barn vermin, birds and insects; the increasing use of "bovovaccine" with the object of immunizing the herds, the result being too often but a temporary irresponsiveness to the tuberculin test which allows diseased animals to be sold as sound; finally, the repeated use of tuberculin on the same animal so as to produce a corresponding irresponsiveness to the test so that the seller at least has secured an immunity from prosecution based on a condemnation by the tuberculin test. Still another practice has been introduced, namely, to subject the system of the cow, one or two days before the prospective test, to the action of tuberculin so that she will on the third day fail to react when tested.

The last three conditions are comparatively new and, though long foreseen, it seemed impolitic to extend their use by drawing the attention of dealers in cattle to these means of covering up the evidence of the sale of the diseased. It is now too late to attempt to limit the evil by longer keeping silence, the practices are now widespread and the new conditions must be met by new sanitary measures. In the last few years almost every cow introduced into our University herd, though a thoroughbred animal and introduced on the guarantee of a tuberculin test, has, in six months or more after arrival on the farm, responded to the tuberculin test and, when killed, has shown the existence of tuberculosis. Fortunately only one of the original University herd, which has been kept sound for twenty-six years, has contracted the disease from these importations. That the University herd has remained sound shows clearly that these newly arrived animals could not have contracted the infection in our stables but must have brought it in with them.

These recent conditions detract nothing from the value of tuberculin, when employed as it could have been ten or fifteen years ago. Then it could have been used successfully to secure a basis for a comparatively easy suppression and extinction of tuberculosis. Under the misuse of it and of "bovovaccine," the tuberculin is no longer of itself sufficient to show tuberculosis in an animal that has been tampered with, or that may have been. The new conditions demand new and more searching measures. These must be based on the attested soundness of the herd from which the animal is to be taken.

Imported cows must be either excluded or admitted only on certificate of the former owner that they have been for years in his herd and that no tuberculosis has existed in that herd for three years antecedent; further, they must be tested with tuberculin, their destination recorded, and they must be retained at such first destination for six months and then retested. It will be alleged that dealing in cows from outside the State will thus be made impracticable, but dealers must remember that it is largely due to their obstinate persistence in our vicious system of the past, and their steady and unfortunately successful opposition to any legislative improvement, that we have been reduced to our present deplorable condition, which necessitates the measures proposed. Fifteen or even ten years ago the elimination of tuberculosis from our herds would have been easy and relatively inexpensive; today, thanks to the reckless movement of cattle, sound and unsound, it will be difficult and much more costly. A sanitary control, which will make importations safe in the future, is of incomparably more importance to our live stock interests than the profits of a reckless trade, ruinous to our 1,800,000 milch cows, can possibly be to the dealers who are engaged in such trade, or than the trade can be to the commonwealth.

The same measure, meted out to the dealers in cattle from outside the State, should be dealt out to the owners of cows sold or transferred inside the State. No cow or store cattle should be transferred from one place or herd to another within the State, unless the seller or transferrer can give a guarantee and bond that there has been no tuberculosis in the herd for at least three years prior to the transfer and that no additions have been made to the herd in that time, save from herds guaranteed in a similar manner. The animals transferred and the herd from which they were taken should further be tested with tuberculin, and any reaction under the test should bar any transfer from that herd.

This will entail a large outlay for marking, registration and supervision, post-mortems, etc., but it will at once place sales and transfers on a sound and safe basis, will stop at once the extension of infection, and will lead every herd owner to set about purifying his own herd that he may secure an open and profitable market at the earliest possible moment. This the owner may secure by State aid, or more slowly by the Bang method, but in either case the final result will be certain and of immensely greater consequence to the commonwealth than the whole outlay made for extinction of the disease. The stockowner to whose herd a shadow of suspicion attaches has no moral right to transfer an animal from that herd to another, while the dairyman or breeder, who has by his judgment, care and good fortune preserved his herd free from infection, is entitled to every advantage which a full guarantee of soundness can bring him.

The most dangerous element in the trade is the middleman who buys from all sources, mingles his purchases in his own stables and yards, and distributes them far and wide among his customers. In his hands certificates, markings and guarantees are liable to become complicated and uncertain, and if his trade is not absolutely put a stop to during the emergency period it should be allowed to continue only under the most stringent supervision. The details of the system would be out of place here, the leading principle alone can be referred to.

The other plagues of animals are quite as much in need of intelligent supervision as is tuberculosis. Contagious abortion is almost as widely extended as the dairy industry, and is even more occult and elusive than tuberculosis. It is even worse in this, that long after individual immunity has been established the infecting germ is still carried by the animal. A control of transfers should be at least as exacting and as far-reaching as for tuberculosis. Canine madness is not suppressed or extinguished, as it might easily be, but is constantly increasing. Glanders prevails in the large cities through ineffective legislation and administration. Many of the other animal plagues, like strangles, equine influenza and contagious pneumonia it is not even attempted to control.

NEEDS OF THE NEW YORK STATE VETERINARY COLLEGE

Anatomy: To secure sufficient laboratory space another story can be put on the dissecting room, and a preparation room furnished on the site of the present small-animal house	$1,500
A dark closet for photographic work	200
One graduate instructor	500
Physiology and pharmacology requires instruments and apparatus to be used in the small animals clinic	100
For laboratory assistants (extra)	250
Pathology and bacteriology. Extra laboratory material	100
Additional laboratory assistant	
Experimental farm	
Surgery and obstetrics: New operating room and fittings (voted by council).	
Share of team, wagons, groom and buildings for same	
Medicine: One extra professor to conduct outside clinic and share in class room work	3,000
Teams and wagons to use in outside clinic and necessary College work (already voted by Council).	
Ambulance	500
Extra groom	480
Buildings for shelter of team, wagons, etc.	1,000
Buildings for medical and sanitary clinics, instruments and apparatus	30,000
Experimental farm in connection with sanitary work and for breeding of animals.	

Unless other provision can be made for the equipment of the department of medicine and sanitary science every dollar, in addition to past maintenance appropriations for the other departments, would be fairly and justly devoted to the department in which the new instructors are appointed. In securing men to begin work in a field which is comparatively new to them, they should be furnished with the means of doing full justice to the students, to the College and to the State. Any additional expense incurred in making such a movement is no longer to be looked on as simply taking an advanced position to which other veterinary colleges may aspire, but rather as a means of preventing other such institutions from distancing us in the race, and displacing our College from the leading place which it has long so proudly and advantageously maintained. Illinois is now engaged on a state veterinary college for which $250,000 has been provided for buildings and equipment' and $30,000 for yearly support. Pennsylvania has secured from state and private gifts for its veterinary college a sum estimated at

$500,000; other states are steadily advancing in the same direction. If New York should add to her long established record of the neglect of practical veterinary sanitary work, the further discredit of having to assume a second or third place in veterinary education, it must tell disastrously in depreciating the reputation and value of our live stock.

Respectfully submitted,

JAMES LAW,

Director of the New York State Veterinary College.

APPENDIX VIII

REPORT OF THE DIRECTOR OF THE NEW YORK STATE COLLEGE OF AGRICULTURE.

To the President of the University:

Sir:—The present year has been signalized by the College becoming thoroughly established in its new buildings. This is no small event either to the College or to the people of the State. It is the epoch to which friends of agricultural education have looked forward since the founding of the University. Whatever the College has been able to accomplish in the past for the rural interests of the State, it ought now to be able greatly to extend its usefulness and influence; and the many enterprises for which it stands now have a tangible abiding place, to which accretions will necessarily be made from year to year in fulfillment of a definite plan. This plan is, to have every rural interest of the State adequately represented in higher education.

The year has seen only one marked change in the personnel of the College. This change is the departure of Professor Pearson, on April 19, to become Commissioner of Agriculture of the State of New York. Professor Pearson's connection with the College, as one of its staff, began with the reorganization of the College five years ago. He has been instrumental in building up a dairy department that is characterized by new methods, a fairly perfect organization, and great teaching effectiveness; and he has made a reputation with the farmers and others of the State for integrity, ability and helpfulness. While it is a distinct loss to the College to have him sever his connection, we nevertheless feel that he is called to a larger service, and we are confident that the educational and investigational efforts that are now expending themselves in the interest of a better agriculture will find marked expression in the administrative programs of the State.

A marked departure in agricultural college work,—or in any college work, for that matter,—is the establishing of the sub-department of limnology. This work is in charge of Dr. J. G. Needham, well-known as a painstaking and inspiring teacher and investigator. This department investigates swamp and aquatic life, particularly with reference to the study of the forage food of fishes. This subject is of great importance to New York, since the State contains so many lakes and streams that should be a source of food supply. While we are stocking some of our lakes with game fish, the agricultural utilization of our waters is yet scarcely begun.

The number of students continues to increase. In fact, the number is now so large that we are facing a serious question as to how we can accommodate more persons with justice to the students and satisfaction to ourselves. The great new buildings, which seemed so ample when they were planned, are now filled to every corner in basement and attic, and some of the departments are not yet housed. There is no auditorium large enough to hold all the students, let alone holding the staff also. The Agricultural College community now comprises about 500 persons, and during the winter course period about 750. The main auditorium seats 610. Nearly all the laboratories and class rooms are already crowded. It is even now a question for the State to take cognizance of, that the College is taxed to its full capacity in respect to both teachers and quarters. This really should be a matter of congratulation, and the State should willingly provide additional quarters, facilities and staff. The College is full to overflowing of farm youth. This is what the College is for.

Following is the registration in the College of Agriculture for 1907–1908:

Graduates	47
Regulars	209
Specials	140
Winter Courses	268
	664
Counted twice	12
	652

REGISTRATION IN WINTER COURSES

General Agriculture	105
Dairying	95
Poultry Husbandry	43
Horticulture	18
Home Economics	7
	268

The College of Agriculture is not a technical institution in the sense of carrying one definite curriculum leading to a profession or a single occupation. It comprises a great variety of subjects, all so organized as to form part of a liberal education in terms of country life. For this reason, as well as because students are increasing rapidly, the expansion of the College should be rapid for many years to come. Certain great subjects are as yet included only under serious limitations. This is markedly true of the agricultural relations of chemistry, a department that should be adequately housed in the College of Agriculture. Certain of the biological subjects need to be extended. A regular normal department to train teachers to teach agricultural subjects in rural schools, is much needed. Aside from this, certain of the technical agricultural subjects are yet imperfectly supplied, particularly in the direction of the animal husbandries. My report of last year indicates a few of the most urgent needs of the College, some of which are not yet provided, as adequate land, class rooms and laboratories for the poultry department, sufficient live stock, a normal department and a forestry department. A year ago the State appropriated $25,000 for barns, and this will make a good beginning. An item is now pending in the "Supply Bill" to provide $30,000 for glass-houses for the various departments, and this also will make a good start.

The many and diverse pedagogical interests that are represented in a modern college of agriculture make it very difficult to prepare a homogeneous and logically correct curriculum. There is from time to time a movement to introduce technical agricultural subjects into the first two years, and there is much to say in commendation of it; but in the end the choice must always be made between such subjects and those that are held to be fundamental or preliminary to the technical courses in the junior and senior years. In certain institutions it is considered to be advisable to introduce such courses in the early years in order to hold the students; but with us we desire less to hold students than to train them well. For those who cannot remain longer than one or two years, we provide various special courses. It is undoubtedly desirable to introduce the student to agricultural subjects as early as possible, so long as the subjects are taught for the purpose of really training the man and so long as they do not crowd out more essential subjects; but the solution of the difficulty seems to lie in the redirecting of customary courses—in a new method of teaching—rather than in the mere addition of other courses under agricultural names. This may mean eventually that the College of Agriculture itself must teach much of its fundamental work. This will raise questions of far-reaching importance to the status of the College.

My chief desire at the present time is to press the fact that the College of Agriculture is but beginning its work, and that it must expand greatly if it is to serve the State to the extent that the citizens expect. I hope that the College proves itself day by day, and that it does not need to wait for greater accomplishment before it acquaints the people of the State with the legitimate needs of the institution; in fact, the longer we withhold, the greater will be the difficulty of serving the people adequately.

Respectfully submitted,

L. H. BAILEY,

Director of the New York State College of Agriculture.

APPENDIX IX

REPORT OF THE DIRECTOR OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

SIR:—I have the honor to submit my annual report for the year 1907–1908.

So far as may be judged from a near point of view, the year has been one of the most successful in the history of the College. For the first time we have registered more than 100 students, an increase of 25 per cent over the registration in 1906–1907. The general standard of work maintained has been unusually high and our students in design have throughout the year carried off the major honors in such of the Beaux Arts competitions as their schedule has permitted them to enter.

In the absence of the Director on leave during the second half of the year Assistant Professor Phelps has been in charge of the work.

Much serious thought has been given during the year to a revision of courses, with reference both to strengthening the present four year course and to formulating a five year course. The most marked improvement in the four year course has been in the reorganization of the work in the mechanics and engineering of architecture along the general lines recommended in my report for 1906–1907, though we are still obliged to depend upon the College of Civil Engineering for instruction instead of having a specially trained architect for the work.

The Faculty of this College is in hearty accord with the principle of a five year course advocated for the technical Colleges in your last annual report, and a committee of the Faculty has formulated a course that I hope may be adopted to go into effect next year. This course would not supersede the four year course but would parallel it as an alternative. The entrance requirements would be exactly the same in amount of work required but would allow the student more latitude in choice of subjects offered. The amount of technical work required for the degree would be exactly the same as in the four year course, the additional time being devoted to work in arts and sciences either prescribed or elective.

Inasmuch as the majority of students electing technical courses are over-anxious to begin the work of their choice and are exceedingly impatient of anything that seems extraneous, and as there are always a few who elect a course without any special fitness for the work, it has seemed best to those formulating the five year course in Architecture to introduce enough technical work at the beginning to satisfy the enthusiast and to "try out" the uncertain element, so that mistakes may be rectified as early as possible. As a part of the same idea it has been deemed best to reserve time for electives in the later years of the course when the student has become in a measure sated with his technical studies and has reached a stage in his development that will enable him to take a keener and more intelligent interest in studies of a more purely cultural nature.

The increased attendance is very gratifying in many ways, though not without a troublesome aspect. It not only threatens to render our new quarters in White and Franklin Halls inadequate at an early date, but for the first time we are brought face to face with the necessity of dividing our classes into sections, a situation which must inevitably call for an increase of the teaching staff. During the past year we have had as many as 40 students in a single section in drawing with one instructor, a condition that even with the hardest work on the part of the instructor must allow from 10 to 15 students to go without a criticism at each session of the class. While there are times when this is no serious disadvantage, especially with advanced students, there are other times when it works as a very serious disadvantage to the less resourceful students in the more elementary classes, and these are just the classes that are likely to be largest.

For the past two years the drawing in connection with the courses in landscape design in the department of rural art in the College of Agriculture has been done in the large drafting room in White Hall under the direction of Assistant Professor Fleming and Mr. Taylor, both of the College of Agriculture. This was a temporary arrangement before the new buildings of the College of Agriculture were opened for occupancy, but it proved so advantageous on account of the very close relationship between landscape design and architecture that it was continued through the year just closing. However, with 100 students in Architecture and about a dozen in landscape design the drafting rooms were completely filled, so that any further increase in the number of Architectural students must inevitably crowd out the landscape students. I bring this matter up here because I am much interested in these courses and because I believe that they can be carried on much more successfully under the present arrangement than if the landscape students were removed from their close relationship with the drafting rooms and library of the College of Architecture. The work occupies a unique position between Agriculture and Architecture, belonging partly to both, yet in reality to neither; but it is a course that should by all means be fostered and encouraged by the University and I see no better plan for the present than that of keeping it in the College of Agriculture where the major part of the work is given, but it seems to me that the present close relationship with the work in Architecture should be continued if possible.

In accordance with the established policy of the University, the College of Architecture has been teaching freehand drawing to certain students in Arts and Sciences and in Agriculture. At first such students were admitted to the regular classes, but it was soon found that the standard required for the Architectural students (because of other parallel courses in drawing and design), was so much higher than could be attained by the general student that separate classes with a different standard were necessary. Then, too, the theory which I have held that all freehand drawing in the University should be taught by the College of Architecture, because for the purposes of Architecture drawing is taught in the broadest possible way, seems hardly tenable on closer contact with the work and the needs of the students. I am now convinced that for the majority of students in those courses where drawing is studied as a means to an end in scientific work, rather than as a medium for artistic expression, much better results can be attained if the end in view is considered from the beginning. The College of Architecture has no theories as to what it should or should not do as a matter of right or privilege in its relation to other Colleges in the University, other than that all should work together for the good of the students who come to Cornell for instruction. With this and only this in view, I would advise that as soon as feasible, proper provision be made for teaching drawing in the other Colleges where drawing is required, believing that much better work can be done for science students by competent teachers working directly with the scientific department in which the drawing is desired. For those students desiring drawing as a purely cultural accomplishment, I still believe that the courses in drawing offered by the College of Architecture are best.

Respectfully submitted,
Clarence A. Martin,
Director of the College of Architecture.

APPENDIX X

REPORT OF THE DIRECTOR OF THE COLLEGE OF CIVIL ENGINEERING

To the President of the University:

Sir:—I have the honor to submit the following report for the College of Civil Engineering for the year 1907–1908.

The registration for the year, as shown by the class roll calls, has been as follows, classifying according to subjects taken rather than by official standing as in the register:

	First Term	Second Term
Graduates	6	6
Seniors	82	81
Juniors	146	122
Sophomores	148	137
Freshmen	149	131
Special Students	2	2
Total	533	479

This list includes 45 graduates in the undergraduate courses.

Of the new students, eight entered the sophomore, 11 the junior and three the senior class.

This shows a healthy growth from last year, the registration then being 469 for the first and 449 for the second term, or an increase of 37 and 48, respectively.

Instruction has also been given to students from other Colleges as follows:

	First Term	Second Term
Sibley	349	644
Architecture	90	22
Arts	25	23
Agriculture	9	7
Graduates	45	45
Total	518	741

The College has had during the year all of Lincoln Hall at its disposal. In addition it required room in other buildings for 14 classes the first term, and for nine classes the second term. Some difficulty was experienced in securing these rooms which emphasizes the importance of providing for further growth at an early date. In my report a year ago, I called attention to the importance of having a larger students' reading room, more space for experimental work in concrete and reinforced concrete, and a lecture room that would seat all of the members of one class or about 150 students. The College has also reached a point where it should have very much more space for its testing laboratory.

The fact that the number of students in attendance in the College has doubled in five years explains the situation. It is indeed gratifying to see such a growth and it speaks well for the instruction given. It does, however, tax resources to the limit, for with this growth more instruments, more apparatus, more space and a larger instructing staff are required. If Lincoln Hall could be enlarged by the extension of one of the wings eastward, to the east line of Goldwin Smith Hall, at an early date, the additional room that it would afford could be used to excellent advantage.

A year ago some few changes were made in the courses of instruction. Descriptive geometry was moved from the sophomore into the freshman year, made a recitation course, and combined with first year drawing. The results so far indicate that the change was a good one.

A new course in reinforced concrete construction was established. The subject is an important one, as is attested by the fact that 65 students took the course.

A new course in steel building construction was established, which is considered an important one, and 26 students took this course.

The work of the College in sanitary engineering was strengthened by adding more chemistry to the course. A course in purification and control of water supplies was also added.

It is my opinion that the subject of sanitary engineering should receive very careful consideration. It is one of vast moment to the people of the State and of the United States, and it will of necessity become of more and more importance as the population of the country becomes more dense.

There was added to the work of the College, in railroad engineering, a course in railroad operation and management, and one in railroad construction and maintenance. The latter is a course given especially for students in Sibley College, and 42 of them were registered in it during the year. The former is for students in Civil Engineering and 14 were registered in it during the year.

I feel it my duty to emphasize the importance of the work of the College in hydraulics. While our present teaching in this line is excellent, we will of necessity have to extend our work for the reason that there is bound to be a tremendous development along new lines in this subject. The last century was called the "age of steam." The present one will as appropriately be called the "age of water." Aside from the uses of water for domestic and sanitary purposes, there are three other fields in which it will play an important part in the economic development of this country. These are navigation, irrigation and power. In many instances there will be combinations of these and while we may not expect much from the use of a given supply for both navigation and irrigation, we may expect a great deal from the combinations of navigation and power, and irrigation and power. It is practically certain that the future improvement of our great river systems of the eastern half of the United States, will be along the line of getting the maximum benefit out of the first combination, or navigation and power. So the water resources of the western half of the United States will be developed with a view to getting the maximum benefit out of the second combination, or irrigation and power. The magnitude of these fields can hardly be realized, and to cope with them it is practically certain that a type of the civil engineer highly specialized in hydraulics, will be required. Cornell must not be found wanting in producing this type of man.

The "Honor System" which was adopted by the students in Civil Engineering in the fall of 1906, has been reasonably successful. It is hoped that it will ultimately reach a point where it will be a "law of the College" which every student who enters will feel bound to respect.

Respectfully submitted,

E. E. Haskell,

Director of the College of Civil Engineering.

APPENDIX XI

REPORT OF THE DIRECTOR OF THE SIBLEY COLLEGE OF MECHANICAL ENGINEERING AND MECHANIC ARTS

To the President of the University:

SIR:—I have the honor to submit the following report of the work of Sibley College during the year 1907–1908. A large part of the work has been carried on as usual and this report deals, first, with those things that are in process of change; secondly, with certain needs of the College which must be supplied to insure that in the future the best technical training shall be offered here.

SHOPS

The changes in the shop instruction indicated in the last annual report have been carried out more fully. Two molding machines have been installed in the foundry and their operation has very greatly increased the effectiveness of the instruction by showing the students the methods of producing castings in large numbers at low cost.

A change in the sequence of the shop courses is proposed and will be made next year. The work in the foundry and forge shop, hitherto given to sophomores, will be given to freshmen and the pattern making will be transferred from the first to the second year. It is believed that the student who has used patterns in the foundry for the producing of castings, will be able to accomplish more in making patterns because of a better understanding of their purpose.

It is also proposed to modify somewhat the instruction in the blacksmith shop. The growth of the electrical manufacturing industry has necessitated the introduction of many new processes for the cold-working of metal and it is hoped that it may soon be possible to introduce machines which have been developed in response to this need. All of the essentials in the teaching of hand forging will, however, be retained.

The teaching of the "principles of manufacturing" in the machine shop which was recently introduced was continued very successfully, and the accompanying class room work has gained in breadth and effectiveness.

MACHINE DESIGN

In the department of machine design a development has been going on for several years the object of which is to concentrate into three years of the course all of the necessary fundamental training in drawing and machine design. This plan, which is now practically complete, leaves the senior free to elect his work in design from among a number of special lines of work. Thus, he may take electrical engineering, where the work of design is chiefly computing, or he may take naval architecture including the design of ships, or railway mechanical engineering with the study of the design of rolling stock, or internal combustion engine design, or the design of steam turbines or of reciprocating steam engines; or, if he does not care to specialize, he may take a general course in design.

EXPERIMENTAL ENGINEERING

In addition to the regular work as it has been carried on heretofore in experimental engineering, there has been installed and put into operation during the past year the electrical apparatus required for a junior course in electrical laboratory work. This course is required of all students. Although this is the first year that this work has been given it has been carried on very efficiently and it is a very desirable addition to the engineering course in Sibley College.

Last year the York Manufacturing Company presented to the University a large refrigerating plant designed especially for investigation and laboratory instruction. Other firms have generously contributed auxiliary apparatus and material making the plant complete for operation. The installation of this plant cost the University about $750. The value of the complete outfit is probably about $10,000. The installation of this machinery makes it possible to give effective instruction in another very important main division of mechanical engineering.

Also during the year a Babcock and Wilcox boiler of 100 horsepower capacity, of the marine type with superheater, has been purchased and installed. The manufacturers generously furnished this boiler at about half the regular purchase price. The installation of this boiler brings our steam making equipment up to the most modern practice, and gives ample capacity.

The establishment of the laboratory for internal combustion engines and accessories, which was described in last year's report, has increased the capacity of that work and has relieved slightly the crowding in the main laboratory. The equipment of this laboratory has been increased during the past year by the gift of a Franklin automobile engine and by the installation of a small "suction gas-producer."

POWER ENGINEERING

In response to a demand due to a growing use of the internal combustion engine, two lecture courses and a design course have been given for two years past. This subject is of such great importance that it is necessary to provide for a large number of students who wish to elect it as a specialty. Hence this work will be developed more fully along the line of class work and design during the coming year and this work will be carried on in cooperation with the laboratory work on internal combustion engines.

Following the example of the department of electrical engineering, we have, during the past year, introduced into the senior work in power plant design the use of "computing periods." Instead of working out assigned problems outside of the University, the students now assemble in sections in a large room under the care of an instructor, where they do all of the work in connection with the lecture course. This plan has the advantage of holding the men up to their work at a specified time, and also makes the work more effective because of discussion among the members of the section with each other and with the instructor. It is hoped eventually to introduce this method into all work where it is possible to use it.

GENERAL

The reading and assembly room in the first floor of the middle section of Sibley College has served, during the past year, for the students who wished to study at the College and it has also been useful during the interval of change between hours for social purposes. In connection with this room the department reference library has been established with an attendant who is always present during University hours. The portion of this room that is partitioned off for the library is supplied with large tables where students may consult the books. When possible several duplicate copies of much used books are placed on the library shelves. It is thought that the accessibility of these books will help in the training of the students of the College in collecting and organizing published material.

PRESENT NEEDS

Sibley College today has two pressing needs requiring considerable expenditure. First, is the need for a new building for housing the machine shop and the wood shop. In the present location, which is necessarily temporary, there is naturally a good deal of hesitation about installing machines or systems with an idea of permanence. The machine shop especially needs many things which have developed in the modern shop practice which cannot be had in the present quarters. This, however, is not the most important thing connected with the providing of a new shop building. Vacating the present building would render space available for the expansion of the experimental laboratory which is now the only crowded department of Sibley College. The electrical experimental work is given in widely separated rooms and it is believed that all the apparatus should be brought together in order to produce the best results. A shop building for the accommodation of the machine shop and the wood shop, of fireproof construction and with all necessary modern improvements, could be built and the transfer of apparatus could be made in addition for a sum not exceeding $50,000.

The second need is for an annual appropriation for research. It is believed that it is very desirable for a technical school to have research work constantly under way because, first, it is thus doing its part in the making of additions to the data of engineering; secondly, because a laboratory of research is a most stimulating influence both to students and teachers. In some western institutions generous appropriations are made for work of this kind. Thus, at the University of Wisconsin an annual income of $5,000 is available for equipment in purely mechanical engineering work. At the University of Illinois a laboratory of experimental research has been established and is maintained by the state. If Sibley College is to maintain its position and prestige it will be necessary to make provision for work of this kind. If an annual income for this purpose of $5,000 could be made available it would be possible, with our present equipment, to produce results that would be of very great advantage to the engineering world and to Sibley College.

Respectfully submitted,

ALBERT W. SMITH,

Director of the Sibley College of Mechanical Engineering and Mechanic Arts.

APPENDIX XII

REPORT OF THE DIRECTOR OF THE SUMMER SESSION

To the President of the University:

SIR:—I have the honor to present my third annual report as Director of the Summer Session.

THE TEACHING STAFF

The teaching staff of the present year consists of fourteen professors, twenty-five assistant professors, twenty-two instructors and seventeen assistants. Of the thirty-nine teachers of professional grade thirty are members of the Cornell University Faculty, and nine come from other institutions. Of the nine there have been here prior to this year Professor George E. Condra of the University of Nebraska, Mr. Arthur D. Dean for the past two years engaged in special investigation of industrial conditions in Massachusetts and in the organization of trade schools there, Mr. Charles W. Furlong, long and favorably known to the Cornell University community, and Mr. Charles M. Stebbins, teacher in the Boys' High School, Brooklyn. Mr. Dean has just been appointed Chief of Division of Industrial Education in the New York State Department of Education. In this way he becomes officially connected with an important branch of education in this State. Mr. Dean has worked with energy and with good judgment in the developing of manual training as a part of the work of our Summer Session. In this he has been most successful. We are sorry to lose him from our Faculty but welcome him as a co-worker in the larger field.

We have had the cooperation and assistance this year for the first time of Mr. James H. Van Sickle, Superintendent of Public Instruction, Baltimore, Md.; of Professor J. L. Meriam, of the University of Missouri, who was formerly a member of the graduate school of Cornell University; Professor James A. Woodburn of Indiana University; Mr. Paul B. Mann, a graduate of this University and now teacher in the Morris High School, New York City; Mr. W. W. Clendenin, teacher in the Wadleigh High School. Further we have had a most efficient assistant in the department of botany in Mr. Layton S. Hawkins from the State Normal School at Cortland, N. Y.

To all of these gentlemen and no less to the members of our regular University Faculty is due the public acknowledgment which I am glad to make here of loyal, eager and devoted service to the work of the Session. The success which has attended our efforts is due to this devotion on the part of the teaching staff. It is quite as true of the Summer Session as of any other phase of university work that it is the men who count. The members of the Faculty have been ready to seize every opportunity for assisting and encouraging their students. They have spared themselves no pains, and have devoted time and energy without stint to the general interests of the students as well as to their own particular field of work. To this generous and helpful attitude of the Faculty the steady and gratifying increase in the number of students is largely due.

STATISTICS OF ATTENDANCE

	1903	1904	1905	1906	1907	1908
Teaching Staff	54	60	58	62	68	71
Number of Students	470	*718	619	642	755	841
Cornell University Students of previous year .	259	246	294	225	288	372
Former Cornell Students .	63	59	59	85	92	84
Graduates of Cornell University	13	23	25	23	19	15
Graduates of other colleges	85	97	100	129	131	125
Non-graduates from other colleges	45	60	59	70	95	107
Teachers...............	154	*356	218	263	302	294
Holding first degrees.....	90	95	111	133	123	173
Holding higher degrees...	23	25	19	21	27	26
New York State	201	244	238	288	320	326
Outside New York State .	269	*474	381	354	435	515

Of the teachers in attendance there were engaged in teaching in:

	1905	1906	1907	1908
Colleges	27	27	22	32
Normal Schools	12	15	18	12
High Schools	61	96	111	147
Grammar or Elementary Schools	93	95	120	82
Private Schools	5	26	17	8
Superintendance and Supervision......	3	6	14	13

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*Includes 145 Porto Rican teachers admitted under special arrangement with the U. S. Department of Education.

Students have come this year from 42 states and territories of the United States and from 17 foreign countries. Among the latter, China is represented by 30 students, Argentina by seven, India and Cuba by five each and the 13 other countries by smaller numbers. The teachers in attendance come from schools in 28 states and three foreign countries. As for several years New York City furnished the largest number, though fewer than last year. Otherwise the geographical distribution is about the same as before. There is a marked increase in attendance from New Jersey, Maryland and Virginia.

The increase in the number of attending teachers from colleges and high schools is gratifying. It proves that our work is appealing more and more to the strongest and most ambitious teachers in the higher grades of educational work. There is a marked diminution in the number of teachers from elementary schools. As these teachers are with hardly an exception women, I ascribe the change in part to the lack of the attraction furnished by the dormitory on the campus this year, and partly to the fact that we offered this year less specific instruction in elementary subjects. The change in the number of Cornell graduates as against last year is exactly the same as that of last year's attendance when compared with 1906. I have no further explanation of this than that offered in last year's report. We must bear in mind, however, that so long as a small proportion of our graduates enter teaching, Cornell loses for this reason a valuable opportunity of having her claims as an educational institution presented to the brightest and most desirable pupils in secondary schools. The importance, therefore, to the University of the presence here of 147 high school teachers can hardly be overestimated. It is encouraging to note the increase in the number of men, mostly principals and superintendents. Furthermore, every year sees persons coming to enter regular courses for degrees, both in the graduate and in undergraduate departments, who have gained their knowledge of the University and their desire to stay here longer from an experience in the Summer Session. The increase in the number of our own undergraduates is due primarily to the extension of instruction to include various courses which appeal to them. I am glad to say that the increase is not due to a larger number of men who are deficient in work of the previous year. The most emphatic testimony as to the high quality of work done in the Summer Session comes from all members of the Faculty.

SCOPE OF THE WORK THIS YEAR

With one or two exceptions there has been little change in the general character of the courses offered. We have been able to continue the progress made in English last year with a gratifying increase in the attendance in this important subject. I believe that it is now well established, and that we shall be able to increase the range of the work in it. Through conferences by the professors in biologic subjects represented in the summer, the work in this field was coordinated and so arranged as to permit a large variety of combinations in the choice of studies. The result has proved most satisfactory, and a progressive and harmonious course in this field is now possible for summer students. The special course in high school biology, established last year and following the syllabus of the State Department, has been continued with marked success.

A somewhat similar course has been introduced this year in physics, and has met with immediate recognition and approval. In this the instructor has had the assistance of sample collections of apparatus for high school purposes loaned by the manufacturers. This is an excellent arrangement which gives teachers an opportunity to familiarize themselves with the exact conditions under which their experiments in the school room must be performed, and further gives them an opportunity to select the best and most economical equipment for their needs. One cause of failure in teaching is the changed conditions under which the college trained man or woman must work in the limited laboratory facilities of a school. Accustomed to the finest of apparatus and to the almost unlimited range of experiment possible in the university laboratory, the novice is helpless, or severely crippled, by the crude or inadequate apparatus of the school in which he begins teaching. Further he must often take the responsibility of purchasing equipment. He is regarded as an expert and the selection of equipment is left to him. Without a specific knowledge he sometimes becomes the victim of agents with fine appearing but expensive and unsuitable outfits.

Six new courses have been added in chemistry this year with gratifying results. There was an immediate response to the opportunity for more advanced work, especially in organic chemistry. It is interesting to note the attendance of persons classed formally neither as students or teachers. Correspondence shows that this class is numerous and I believe we may expect increasing numbers of such persons in the future.

The five courses in first and second year work in French, German and Spanish have been well attended. In German, in fact, it seems likely that an additional section will be needed next year to care for the large numbers in a proper manner. The principle upon which these courses are based—that the equivalent of one year's work in the high school can be done in six weeks with twelve recitations each week—is established. This successful demonstration ought to be taken into account in any discussion of equivalents in high school work.

Manual training in all grades has received the most careful attention in both theory and application. The attendance has been larger than ever before, especially of men who have charge, either as a part of their work as superintendents, or as supervisors of the subject, of this work in city school systems. One of the finest features of the instruction has been the weekly conferences under the direction of Mr. Dean, who has had the constant aid of Professors Kimball and DeGarmo and Superintendent Van Sickle. The average attendance has been between thirty and forty men who have discussed the various problems connected with the subject in its different bearings. Industrial education is a very live topic today. Many places are rushing into it without a clear understanding of what it means, or ought to mean, and in this way are making blunders which will prove costly, and tend to discredit a movement which is of real merit, and of the greatest importance to society. The sound knowledge and wide actual practice of both Mr. Kimball and Mr. Dean have been of immense advantage in giving to their students a wise view of the problems, and through these two the University has been able to do good service in guiding the new movement into correct and useful methods. As noted above Mr. Dean becomes now the official head of industrial education in the State Department of New York.

The largest part of the instruction given in the Summer Session has from the first been in the College of Arts and Sciences. This will, in all probability, continue to be the case. But it is clearer every year that this College cannot meet the whole demand for instruction in the summer. If the student in Arts has an opportunity to make up in the summer any work lost, to get ahead with work which he must do, or to obtain something outside the limits of what is required of him, why should not the Engineering student have the same chance? Many students from other institutions come here each summer to get some of Cornell's advantages in pure science.

Why should not the opportunities she offers in applied science be made available to students elsewhere who wish them? For a number of years instruction has been offered in the College of Civil Engineering in descriptive geometry and in mechanics, so that the principle, if there is any involved, may be considered settled. The chief obstacle to extending this kind of work has been the question of expense. Last year, in response to an urgent call for it, arrangements were made to give the course in machine design, (a regular course of the junior year in Sibley College), and to settle the money question by advance registration. The course was given with satisfaction to all concerned, and proved self-supporting. The same arrangement was repeated this year, and was also made for a course in reinforced concrete arch in the College of Civil Engineering. I am convinced that these two courses should be given again, and should be announced in the winter with the others. The work in the Engineering Colleges is heavy, and the curriculum is crowded. Students will always welcome this opportunity to do in a little more leisurely way, work which makes a large demand on their time because of the manual activity involved. In addition to this the interrelations of knowledge are now so many and the connections between different branches are so close that students and teachers in widely separated fields have common needs. The practice work of the Engineering Colleges is sought by numbers of teachers of science, and our own peculiarly fine equipment in this field enables us to be of special service to them.

One of the most attractive features of summer study at Cornell is the out-of-door work in field, forest and lake. The excursions in connection with botany and geography are unique. They attract many others than those registered in the subjects. The labor and responsibility called for on the part of the instructors in those departments is large, and it is due in no small measure to their watchful care that no accident of any kind has marred the success and pleasure of these excursions this summer.

PLANS FOR THE FUTURE

Our work covers at the present nearly the entire range of subjects taught in the high school curriculum. There are, however, two notable exceptions, music and physical training. I trust we may see our way to provide for them before long. There are several obstacles to this at present, but they seem to me not insuperable.

There is another question, of vital importance to the welfare of the Session, which presses for immediate solution. It is the relation of summer work to advanced degrees. Now this whole matter is in a most unsettled and unsatisfactory condition. An applicant cannot be informed definitely whether or not he may be a candidate for an advanced degree. He hesitates, naturally enough, to come here on uncertainties, and we are in this way losing the opportunity to attract good students, who might be secured if there were some positive action on the part of the Faculty. I do not urge that every such student be received, but it often happens now that if they do come they are able to do work toward a degree. It is the lack of positive rules in the matter which is embarrassing. In most cases it is the master's degree which is in question. The A. M. is tending to become a pedagogic degree. Its possession in several cities brings an increase of salary, and one state at least is making one year of graduate work at a university a condition for license to teach in her high schools. I find the attitude at other universities very favorable to summer study for the master's degree. Some have gone farther in this direction than I should favor. Their action, however, is a proof that they have found the quality of the summer work high. One of the prime objects of our Session was the elevation of high school teaching. This calls for two kinds of instruction, in the actual subjects of the high school curriculum, and in the higher work of the teacher's own department of study. Every teacher in a high school is expected to be a college graduate. If he pursues his own studies farther it is natural for him to seek an advanced degree as evidence of serious study, and the only time possible for the majority of teachers is the summer. For the first named kind of work we are making excellent and efficient provision. I think we should provide as much more of the second as we can, and that we should treat candidates liberally in our legislation in the matter. In this arrangement the proposed School of Education would be a great help, and I trust its organization may not be too long delayed.

GENERAL MATTERS

In addition to the regular class work of the Session, there have been numerous lectures of general interest. Following up the plan of the last two years the Monday lectures have been of a scientific character. The first was given by the President of the University, who spoke on "Science and Education." The other lectures were given by Professors Titchener, Nichols, Browne, Kimball and Dr. J. F. Jameson of the Carnegie Institution, Washington. The attendance was excellent. On Thursday evenings lectures were given on various subjects by Messrs. Furlong, Fuertes, Condra, Van Sickle and Mann. Mr. Chenhall gave six organ recitals in two of which he had the kind and pleasing assistance of Mrs. Chamot and Professor Pope.

The Sunday evening service of song on the campus west of McGraw Hall was continued to the satisfaction and pleasure of large numbers each week. There appeared some call for regular preaching services on Sunday. It may be worth while to repeat the plan of a morning service in Sage Chapel which we followed two years ago.

The loss of Sage College this year has been felt in several ways. In addition to the advantages of furnishing a residence near the lecture halls and in the midst of the campus, it has been the center of social life. In a small way two or three of the lodging houses have tried to make up for this, and quite successfully. Through the kindness of Director Smith, and the most efficient assistance of Professors Kimball and Darling, room was given in the Sibley College for the Saturday evening dances, and one of the pleasantest features of the Sage College life was thus preserved and made even more enjoyable than before.

Respectfully submitted,

George P. Bristol,
Director of the Summer Session.

APPENDIX XIII

REPORT OF THE WARDEN OF SAGE COLLEGE

To the President of the University:

SIR:—I have the honor to submit my report as Warden of Sage College for the year 1907–1908.

The number of students resident in Sage College during both the first and second half years was 169; the number in Sage Cottage during the first half year was 39, during the second half year 36. The total number in the dormitories, therefore, was 208 for the first half year, 205 for the second half year. Three lodging houses accommodating from fifteen to thirty students each, were reserved for women in the fall and kept full during the year. Of these three, one was the Alumnæ House, the plan of which was described in last year's report and which has already demonstrated its power for usefulness and given promise of a long and successful existence. A second house was composed of women of one fraternity, the third of women from various classes who either applied too late for rooms in Sage, or who preferred the greater quiet of life in a smaller establishment. About ten seniors or older students roomed in Cascadilla building. The remainder lived either at home or with friends or in places that were approved by the Warden. The scheme initiated this year of requiring all women registering in the University to register also at the Warden's office, proved of invaluable service in bringing the Warden at once into touch with all for whose housing she was responsible.

Various small improvements were made in the dormitories during the year including the installation of the system of automatic fire alarms and thermostats which were ordered last winter. Since September also a night watchman has patrolled the corridors of the College and Cottage, so that the protection against fire would now seem to be complete. The increase of twenty-five cents weekly in the price of board has made possible some widening in the range of the bill of fare and a small but needed addition to the staff of waiters which has facilitated service in the dining room. In general the table seems to have been wholesome and reasonably satisfactory in spite of the constantly rising cost of food material. Certain sweeping alterations which are to be made in the College building during the coming summer will improve still more conditions in the dining department, notably, the enlarging and rearranging of parts of the kitchen and of the freshmen dining room. The laying of new hard wood floors throughout the College, the remodelling of a portion of the reception rooms, the addition of a large new hot water boiler to the south wing and the general repainting and repapering and freshening of old furniture there and in the Cottage, which are also to take place in the summer, will much increase the comfort and attractiveness of these dwelling places of the women of the University.

The general health has, in the main, been good, especially during the spring term when sickness of any kind was unusually rare. In October one of the young men who acted as student waiters contracted scarlet fever from some outside source and imparted the infection to other members of the household before the nature of his own malady was discovered. Four young women, two residents of Sage College and two of the Cottage, came down in turn with the fever and were taken to the isolated ward of the City Hospital. Prompt and efficient action on the part of the University Committee on Health prevented the spread of the disease. A trained nurse was brought from the Infirmary and a doctor called morning and evening to keep strict watch over every case of illness, however slight and apparently innocuous and every spot where contagion could have lodged was carefully cleansed and fumigated. A few students took alarm and went home fôr a week or two or to other houses in town, but on the whole their attitude was cool and sensible and there was no panic. All anxiety for fear of further outbreak had practically ended by Thanksgiving. The cases of fever were uniformly light and the last of the convalescents was released from detention during the Christmas holidays.

Work in the department of physical training and athletics has proceeded steadily as before. Dr. Barringer has paid her customary visit to examine and advise with the women upon their health. To the universal regret she finds it incompatible with the growing demands of her practice in New York to continue her connection with the University another year. The women have profited by her willingness to sacrifice her own interests to theirs for so long, they themselves are appreciating now what her colleagues have felt from the first, the value of her insistence upon a more thorough and systematic oversight of the physical condition of the student body and a stricter enforcement of precautions against excessive exertion, and also of her efforts to arouse in the community a more intelligent concern for the maintenance of their own health. The new athletic field is slowly taking shape and has already been used for outdoor basketball. The problem of paying for the further grading and improving that are necessary has been simplified by the generosity of Mrs. Andrew D. White, who has offered to double any sum which the students themselves may raise up to five hundred dollars. Next year, it is hoped, will put the field into good enough condition for tennis. The rowing club has its new boat finished and partly paid for and this spring saw the organization of ten class crews. Basketball and tennis have been carried on as usual.

The student government association has passed through a momentous year, particularly in its relations with the women in houses outside the campus. A branch of the association was started in the fall in each of the three larger lodging houses, the rules for conduct which are in force at Sage were adopted by vote of the residents of the houses and a house president was chosen who superintended the administration of the rules and of house affairs in general and represented her house in meetings with the warden or with the general executive committee at Sage College. It has been recognized, however, throughout the year that the constitution with its various distinctions between women within and those without the dormitories was no longer adapted to present conditions when all are officially on the same basis, subject to the same jurisdiction. Accordingly a student committee has recently drawn up a new frame of government which will undoubtedly be adopted with some few alterations by the whole Association next October. The striking features of this instrument are a new membership clause which makes all women registered as students in the University *ipso facto* members of the organization and provides for local committees meeting weekly to settle minor questions in each house, Sage College and outside houses alike, and a general committee composed of the representatives from each house committee, meeting once a month in different houses by turn to handle more serious matters. The old distinctions between residents of Sage and of outside lodging houses are practically obliterated and the same general regulations are binding upon all. The adoption of this constitution will be one of the most important steps yet taken in the development both of the influence of the student government association and of the idea of unity and homogeneity among the women in the University.

The Warden's own absence through illness from January to June made it impossible for her during that period to take part in any College undertakings and also brought about the abandonment for the year of the usual official receptions. Through the fall term she was at home to students on Thursday evenings and held a small reading circle for an hour on Saturday evenings. In October, she invited the freshman class to meet Miss Putnam. The Assistant Warden gave two teas to the women at the Cottage and during November invited Dr. Hiram Corson to read aloud in the Cottage parlor on Saturday afternoons. The customary student festivities, class "stunts," fraternity and society teas and dances and the other functions which vary the academic year took place as they have done before.

Respectfully submitted,
LOUISE ROPES LOOMIS,
Warden of Sage College.

APPENDIX XIV

REPORT OF THE REGISTRAR

To the President of the University:

SIR:—I have the honor to submit herewith my twelfth annual report as Registrar of the University. The report covers the academic year 1907–1908, including the Summer Session of 1908.

THE YEAR

	Days in Session	Sundays	Holidays	Vacation	Total
First term, Sept. 24–Jan. 29	96	16	3	..	115
First term, vacation, Jan. 30, 31	..	..	..	2	2
Christmas vacation, Dec. 21–Jan. 2 ...	..	..	..	13	13
Second term, Feb. 1–June 18	109	18	2	..	129
Easter vacation, Mar. 28–April 6	..	..	..	10	10
Summer vacation, June 18–July 5	..	..	..	17	17
Summer Session, July 6–Aug. 14......	35	5	..	..	40
Summer vacation, Aug. 15–Sept. 28 ..	..	..	..	45	45

In addition to the 240 days in session given above, the University Library was open every day in the year except holidays and there was no time during the year when college activities entirely ceased. The shops and some of the laboratories were also open during nearly all the vacation period.

STUDENTS

The table given on page xci, which shows the attendance for 1907–1908, gives the number of students who have received instruction this year, including those in the 1908 Summer Session and in the winter courses in agriculture, but excluding duplicates, as 4,465, an increase over last year's attendance of 240.

The accompanying table shows the attendance in each course since the opening of the University in 1868. Previous to 1897 optional and special students were separately tabulated but now these are distributed as far as possible among the groups to which they belong.

The attendance for the year is the largest in the history of the University and the increase in the number of regular students this year is 211. Special attention is called to the fact that the above table includes winter and summer course students only as separately tabulated.

MATRICULATES

The following table shows that 1,737 students have registered during the present year for the first time. The table also shows the method of admission.

Graduates	62	New York City Exam's ..	9
Advanced standing	225	Coll. Ent. Board Ex.	33
Regents' credentials	244	Medical (Ithaca)	22
School certificates........	465	Medical (N. Y. City)	75
By examination	41	Veterinary students	30
As special students.......	146	Summer Session (1908) ..	385
		Total	1,737

The small number entering by some of the above methods is due to the fact that two or more methods have been combined in a single case, the student, however, being listed in the group to which the major portion of his entrance belongs.

G OF THE UNIVERSITY IN 1868.

	4–95	95–96	96–97	97–98	98–99	99–00	00–01	01–02	02–03	03–04	04–05	05–06	06–07	07–08
Gradu	85	145	161	166	190	174	205	189	201	197	211	232	239	249
*Optior	66	77	75	....	....	....	....	....	....	....	....	....	....	....
Artsa	..	....	....	624	631	680	755	831	795	734	684	705	748	820
Arts	52	166	200	....	....	....	....	....	....	....	....	....	....	....
Letter	65	50	27	....	....	....	....	....	....	....	....	....	....	....
Litera	..	....	....	....	....	....	....	....	....	....	....	....	....	....
Philos	37	155	157	....	....	....	....	....	....	....	....	....	....	....
Histor	..	....	....	....	....	....	....	....	....	....	....	....	....	....
Mathe	..	....	....	....	....	....	....	....	....	....	....	....	....	....
Scienc	..	....	....	....	....	....	....	....	....	....	....	....	....	....
Scienc	31	151	171	....	....	....	....	....	....	....	....	....	....	....
Natur	..	....	....	....	....	....	....	....	....	....	....	....	....	....
Chemis	..	....	....	....	....	....	....	....	....	....	....	....	....	....
Medica	8	7	8	....	....	....	....	....	....	....	....	....	....	....
Agricu	45	51	68	84	85	88	99	92	114	142	189	230	278	348
Mecha	21	209	245	467	501	571	661	792	891	964	1060	1096	1081	1127
Mecha	..	....	....	....	....	....	....	....	....	....	....	....	....	....
Electri	89	295	243	....	....	....	....	....	....	....	....	....	....	....
Indust	..	....	....	....	....	....	....	....	....	....	....	....	....	....
Civil E	23	122	152	179	185	203	183	214	252	326	385	425	466	511
Archit	76	67	51	53	48	43	52	50	53	65	68	81	82	100
Law	91	207	239	246	164	178	182	198	224	240	228	222	211	206
Veteri	..	....	11	16	23	30	42	51	64	86	110	88	86	82
Forest	..	....	....	....	7	20	23	44	70	....	....	....	....	....
Medica	..	....	....	....	278	333	347	433	396	371	406	394	348	320
Pharm	..	....	....	....	....	....	....	....	....	....	....	....	....	....
To	89	1702	1808	1835	2101	2299	2521	2845	3022	3091	3318	3461	3523	3734
†Summe	72	237	192	203	424	445	424	548	470	718	619	642	755	841
Summe	11	18	18	20	29	26	30	35	33	26	....	....	....	....
Summe	..	....	....	....	....	19	18	9	....	....	....	....	....	....
Summe	..	....	....	....	....	15	29	12	....	....	....	....	....	....
Winter	77	83	60	93	89	83	94	96	121	134	199	248	244	270
Winter	..	....	....	....	....	....	11	8	3	1	....	....	....	....

The classification of "Optionals" was always vague, and

892.

DEPT. & COLL.	GRADUATES			ARTS & SCIENCES			LAW			MEDICINE			AGRICULTURE			VETERINARY		
DEGREES	A.M., Ph.D., M.M.E.			A.B.			LL.B.			M.D.			B.S. in Agr.			D.V.M.		
CLASSIFICATION	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T
Graduates	206	43	249	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Freshmen	..	..	..	207	81	288	..	..	..	94	10	104	93	3	96	..		..
Sophomores	..	..	..	109	66	175	..	..	..	70	7	77	42	4	46	..	..	..
Juniors	..	..	..	88	72	160	..	..	..	57	6	63	28	1	29	..	..	..
Seniors	..	..	..	96	82	178	..	..	..	61	1	62	31	4	35	..	..	..
1st Year Class	..	..	..	..	..	..	94	..	94		..	..	..	..	..	33	1	34
2nd Year Class	..	..	..	..	..	..	59	..	59	..	..	..	..	..	..	25	..	25
3rd Year Class	..	..	..	..	..	..	47	1	48	..	..	..	..	..	..	19	..	19
Specials		..	..	7	12	19	5	..	5	13	1	14	132	10	142	4	..	4
Totals	206	43	249	507	313	820	205	1	206	295	25	320	326	22	348	81	1	82
Duplicates	17	5	22	..	..	..	..	..	..	6	1	7	..	..	..	..	..	..
Net Totals	189	38	227	507	313	820	205	1	206	289	24	313	326	22	348	81	1	82
Short Winter Agr.	..	..	..	..	..	..	..	..	..	..	..	..	258	12	270	..	..	..
Summer	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	189	38	227	507	313	820	205	1	206	289	24	313	584	34	618	81	1	82
Duplicates	..	..	..	..	..	..	..	..	..	..	..	..	8	..	8	..	..	..
Net Totals	189	38	227	507	313	820	205	1	206	289	24	313	576	34	610	81	1	82

DEPT. & COLL.	ARCHITECTURE			CIVIL ENG.			MECH. ENG.			SUMMER SESSION			TOTAL		
DEGREES	B. ARCH.			C. E.			M. E.								
CLASSIFICATION	M	W	T	M	W	T	M	W	T	M	W	T	Men	Women	Total
Graduates	..	..	..	..	..	..	..	..	..	..	..	..	206	43	249
Freshmen	40	2	42	194	..	194	422	..	422	..	..	..	1050	96	1146
Sophomores	20	1	21	123	..	123	237	..	237	..	..	..	601	78	679
Juniors	13	..	13	114	..	114	204	..	204	..	..	..	504	79	583
Seniors	8	..	8	73	..	73	241	..	241	..	..	..	510	87	597
1st Year Class	..	..	..	..	..	..	..	..	..	..	..	..	127	1	128
2nd Year Class	..	..	..	..	..	..	..	..	..	..	..	..	84	..	84
3rd Year Class	..	..	..	..	..	..	..	..	..	..	..	..	66	1	67
Specials	15	1	16	7	..	7	23	..	23	..	..	..	206	24	230
Totals	96	4	100	511	..	511	1127	..	1127	..	..	..	3354	409	3763
Duplicates	..	..	..	..	..	..	..	..	..	..	..	..	23	6	29
Net Totals	96	4	100	511	..	511	1127	..	1127	..	..	..	3331	403	3734
Short Winter Agr.	..	..	..	..	..	..	..	..	..	..	..	..	258	12	270
Summer	..	..	..	..	..	..	..	..	..	598	243	841	596	243	839
Totals	96	4	100	511	..	511	1127	..	1127	598	243	841	4185	658	4843
Duplicates	..	..	..	..	..	..	..	..	..	336	36	372	342	36	378
Net Totals	96	4	100	511	..	511	1127	..	1127	262	207	469	3843	622	4465

ADMISSION FROM OTHER COLLEGES AND UNIVERSITIES

The Registrar has charge of all credentials presented by applicants coming from other institutions and this system has given uniformity of action on similar certificates when the applicants enter different courses at this University.

In the following lists should properly be included a number of cases of special students who, coming from other colleges, would have been eligible for admission to advanced standing. Such students, however, preferred to be admitted as specials. Some later changed to a regular course but are not included in these tables.

The number of students admitted to advanced standing as candidates for the first degree during the past twenty-two years is, as nearly as may be ascertained, as follows. The former courses in Chemistry, Pharmacy, Medical Preparatory and Optional have been omitted from the table but the numbers retained in the totals.

Year	Arts	Phil.	Lett.	Sci.	Agri.	Arch.	Civil Eng.	Mech. Eng.	Forestry	Law*	Vet.	Med.	No. of Cases
1886–87	2	8	1	4	1	4	6	18	..	..	..	..	50
1887–88	6	4	1	1	..	..	11	10	..	..	..	..	37
1888–89	5	..	6	6	1	2	12	21	..	..	..	..	58
1889–90	4	5	6	3	2	1	2	25	..	..	..	..	50
1890–91	8	8	2	4	1	..	14	28	..	..	..	..	65
1891–92	7	9	2	5	2	2	10	52	..	..	..	..	89
1892–93	6	6	1	8	..	6	11	44	..	..	..	..	87
1893–94	5	6	5	8	..	6	6	56	..	..	..	..	94
1894–95	4	2	3	3	2	3	6	44	..	..	..	..	71
1895–96	5	11	4	7	3	3	9	33	..	..	..	..	85
1896–97	10	4	2	4	3	3	11	42	..	12	5	..	100
1897–98	11	6	..	7	9	2	15	41	..	15	1	..	108
1898–99	27	6	1	7	5	3	16	56	2	6	3	2	134
1899–00	28	..	..	1	5	3	25	64	1	7	4	..	138
1900–01	37	..	..	..	4	6	6	64	3	10	2	2	134
1901–02	38	..	..	..	9	2	29	92	5	7	..	2	184
1902–03	33	..	..	..	8	2	24	105	9	12	1	..	194
1903–04	31	..	..	..	9	5	39	112	..	9	1	1	207
1904–05	29	..	..	..	9	5	44	101	..	3	..	..	191
1905–06	39	..	..	..	14	8	36	89	..	1	..	..	187
1906–07	40	..	..	..	19	5	55	86	..	15	..	..	220
1907–08	43	..	..	..	22	10	60	79	..	11	..	..	225

Of the 225 admitted in 1907–1908, 100 registered as freshmen, 69 as sophomores, 36 as juniors, and 20 as seniors.

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*No data prior to 1896–1897.

The distribution of students admitted to advanced standing among the 435 institutions from which such applicants have come during the last twenty-two years is indicated in the following table. This table does not include students entering the Medical College who may have been in other colleges and universities. Students entering the College of Law prior to 1896–1897 are also not included.

Acadia	3
Adelaide, Univ. of	1
Adelbert	11
Adelphi College	6
Alabama	3
Alabama Poly. Inst.	5
Albany State Nor. Coll.	2
Albion Coll.	1
Alfred	9
Alleghany	24
Alma	2
Altoona (Germany)	1
Amherst	11
Anatolia Coll.	1
Arceuil (France)	1
Arequipa Univ. (Peru)	1
Arkansas Univ.	12
Armour Inst.	25
Arizona	1
Astrachansky (Russia)	1
Augustana Coll.	1
Austin	3
Baker Univ.	2
Baldwin Univ.	2
Baltimore City	29
Baltimore Poly. Inst	46
Baltimore Woman's Coll.	6
Barnard	1
Bates	2
Baylor	3
Beaver	1
Beloit	3
Berlin Koenigl. Tech. Hochsch.	3
Berne (Switz.) City Gym.	1
Bethany Coll.	1
Biddle Univ.	3
Boston Medical School	1
Boston Univ.	1
Bowdoin	2
Bradley Poly. Inst.	9
Brigham Young	2
Brooklyn Poly. Inst.	27
Brown	17
Bryn Mawr	5
Buchtel	6
Bucknell	16
Buena Vista Coll.	1
Buenos Aires Nat. Univ. (Arg. Rep.)	7
Buffalo Univ.	3
Calcutta C. E. Coll.	2
California	23
Cambridge Univ.	1
Canisius	1
Cape of Good Hope, Univ. of	1
Carleton	3
Case	29
Centenary	3
Central	2
Centre	2
Charleston	2
Chateau de Lancy (Switz.)	1
Chicago	28
Chinese Univ.	1
Chinzei Gakkwan	1
Christian Brothers	2
Christiania, Univ. of (Norway)	1
Christiania Voss Latin and Tech. Sch	1
Cincinnati	25
Clemson	7
Claflin Univ.	1
Clare Coll. (England)	1
Coe	3
Colby	4
Colegio de los Sagrados Corazones (Peru)	1
Colgate	11
Colorado Coll.	11
Colorado School of Mines	4
Colorado State Agr.	4
Colorado Univ.	8
Columbia	35
Columbian, now George Washington Univ.	25

Concordia Coll.	1
Conn. Agr. Coll.	9
Converse Coll.	1
Cooper Union	7
Cordoba Nat.Coll.(Arg.Rep.)	2
Cornell College	2
Curso Annexo (Brazil)	1
Dakota	1
Dalhousie (Canada)	7
Dartmouth	9
Davidson Coll.	2
De la Salle Inst.	1
Delaware Coll.	1
Delft School (Holland)	1
Denison	4
Denver	5
DePauw	8
Deseret	1
De Veaux	2
Dickinson	12
Dickinson Sem.	1
Doshisha (Japan)	2
Duquesne	1
Earlham	3
Elmira	5
Emory	1
Fairmount Coll	1
Farmville, (Va.) State Nor.	1
Florida Agr. Coll.	4
Fok Fan Coll	3
Foo Chow Coll.	1
Forest Park Univ.	1
Franklin and Marshall	2
Freiburg	1
Furman Univ.	4
Gettysburg	2
Geneva Coll. (Pa.)	3
Grove City	6
Georgetown (D. C.)	12
Georgetown (Ky.)	2
Georgia	8
Georgia Technology	14
German Wallace School	1
Glasgow Univ.	1
Gonyaga Coll.	1
Granville Female	1
Guilford Coll.	1
Habana Inst. (Cuba)	3
Hamburg Realschule	1
Hamilton	12
Hamline Univ.	1
Hampden Sidney	9
Hampton	1
Harvard	26
Harvard Annex	2
Havana Univ. (Cuba)	6
Haverford	4
Heidelberg Univ.	5
Hillsdale	4
Hiram	5
Hobart	20
Hollins Inst.	1
Holy Cross	4
Howard Univ.	3
Idaho	4
Illinois	32
Illinois Coll.	1
Illinois State Normal	1
Illinois Wesleyan	2
Imperial Poly. Coll. (China)	2
Indiana	18
Iowa Agr.	13
Iowa Coll.	6
Iowa State Coll.	2
Iowa State Univ.	13
Jena (Germany)	2
Johns Hopkins	20
Kansas State	9
Kenyon	9
Kentucky State	10
Kentucky Univ.	1
Kentucky Wesleyan	1
Keuka Coll.	2
Knox	10
Lafayette	14
Lake Forest	8
La Salle Coll.	1
Lausanne Gym. Sci.	1
Lawrence Univ.	4
Liceo of Costa Rica	3
Liceo de Manila	2
Lebanon Valley	1
Leesville	1
Lehigh	41
Lewis Inst.	19
Liege (Belgium)	3
Lima (South America)	7
Lincoln Univ.	2
Liverpool Univ.	1
Larboune (France)	1
Louisiana State	7
Louisville, Univ. of	1

Macalester	1
McGill	6
MacKenzie Coll.	8
Maine State	12
Manila-Ateno (P. I.)	5
Manitoba	3
Marietta	2
Marion Mil. Inst	1
Marquette	1
Marshall Coll.	3
Maryland Agr.	10
Mary Baldwin Sem	2
Maryville Coll.	1
Massachusetts Agr.	14
Massachusetts Inst.of Tech.	37
Matanzas Inst. (Cuba)	2
Melbourne Univ.	1
Mexico Univ.	1
Miami	1
Michigan	54
Michigan Agr.	23
Michigan Mining School	3
Mich. State Nor. Coll	1
Middlebury Coll	1
Miller Manual Training	1
Millersburg Military Inst	1
Millsaps Coll.	1
Minnesota	20
Mississippi Agr.	8
Mississippi Coll.	2
Mississippi Univ.	5
Missouri School of Mines	1
Missouri State	18
Missouri Wesleyan Coll.	1
Monmouth	3
Montana Coll.	1
Montana Nor. Coll.	1
Montana School of Mines	1
Montana State Coll.	9
Montana, Univ. of	1
Morningside Coll. (Iowa)	1
Mt. Allison (Canada)	2
Mt. Holyoke	10
Mt. St. Mary's Coll.	1
Mt. Union	1
Muhlenberg Coll. (Pa.)	2
Nanking Univ.	1
Nanyang Coll. (China)	2
Nat. Agr. Coll. (Lima, Peru)	2
Nat. Coll. (Arg. Rep.)	3
Nat. Sch. of La Plata	1
Nebraska	10
Nelson Coll	1
Nevada State Univ	1
Newberry Coll.	1
New Brunswick	1
Newcomb Coll	2
New Hampshire	8
New Hampshire Agr.	1
New Mexico Agr. Coll.	1
New York City Normal	6
New York City Veterinary	3
New York, Coll. of the City of	85
New York Coll. of Pharmacy	1
New York, Univ. of	9
New York Woman's Med. Coll.	1
Niagara Univ	1
Noorthey Coll. (Holland)	1
North Carolina	8
North Carolina Agr.	6
No. Carolina State Nor. Coll.	1
North Dakota Univ	3
Northwestern	18
Norwich Univ	2
Notre Dame	8
Norway, Univ. of	1
Nova Scotia Sch. of Agr.	2
Oberlin	28
Ohio	3
Ohio State	43
Ohio Normal	4
Ohio Northern Univ.	1
Ohio Wesleyan	10
Oklahoma Agr.	1
Oklahoma, Univ. of	1
Olivet	3
Ontario Agr. Coll	1
Ontario Veterinary	4
Oregon	5
Oregn Ag. Coll.	7
Ottawa (Kansas)	3
Otterbein Univ.	2
Owens College	1
Pacific Univ. (Oregon)	1
Pekin Coll.	1
Penn. Coll. (Iowa)	1
Penna. Coll.	1
Penn Military College	14
Pennsylvania State	33
Pennsylvania, Univ. of	30
Pennsylvania, West. Univ. of	25
Phila. Coll. of Pharmacy	1

Pomona	3
Portland Univ	1
Porto Rico Inst	3
Potsdam Inst. ofTech	4
Pratt Inst. Coll. Dept	1
Princeton	34
Presbyterian Coll. of So. Car.	1
Purdue	35
Queen's Coll. (China)	2
Queen's Univ	2
Racine	1
Radcliffe	3
Randolph-Macon	4
Randolph-Macon (Woman's)	1
Realgymnasium (Bremen)	1
Rensselaer Poly. Inst	13
Reykjavik (Iceland)	1
Rhode Island Coll	2
Richmond	7
Rio de Janiero Coll. Alfredo Gomes	1
Rio de Janiero Poly. Sch	1
Rio de Janiero Nat. Coll	1
Rio de Janiero Gymnasio Pio	1
Ripon	1
Robert College	4
Rochester	34
Rockford Coll	1
Rock Hill Coll	1
Rollins Coll	4
Rose Poly. Inst	12
Royal Mil. Coll	2
Rutgers	10
St. Bonaventure's Coll	1
St. Dunstan's Coll	1
St. Francis Xavier	1
St. Ignatius Coll	1
St. John's Coll. (Annapolis)	6
St. John's Coll. (China)	1
St. John's (Fordham)	6
St. John's Coll. (Toledo, O.)	1
St. Joseph's Coll. (Canada)	1
St. Louis (Costa Rica)	2
St. Louis Coll. (Texas)	1
St. Lawrence Univ	6
St. Mary's Coll	1
St. Michael's Coll	1
St. Petersburg Inst. of Tech. (Russia)	1
St. Petersburg Univ. (Russia)	1
St. Stanislaus Coll	1
St. Stephen's Coll	3
San Juan Coll. (P. I.)	1
San Juan School of Mines (Cuba)	1
Santiago Nat. Coll	2
Saratoff (Russia) Tech. Coll.	1
Scio Coll	2
Senmon Gakko (Tokio, Japan)	1
Shaw Univ	1
Simbirsk (Russia)	1
Simpson Coll	1
Smith	5
Soochow Univ	1
South Carolina	6
South Carolina Mil. Acad	3
Southwest, Presbyter'n Univ	2
Spring Hill Coll	3
Stanford	32
Stetson Univ	1
Stevens Inst. of Tech	55
Susquehanna Univ	1
Swarthmore	25
Sydney Univ	8
Syracuse	24
Tennessee	5
Texas	13
Texas Agr.	16
Thiel Coll	2
Tientsin Univ. (China)	5
Tokio Univ	1
Tokio Inst. of Tech	8
Toronto Sch. of Prac. Science	2
Toronto Univ	6
Trinity (Conn.)	4
Trinity (N. C.)	1
Truro Agr. (Canada)	3
Tufts	7
Tulane	28
Union	17
Union Coll. (Ky.)	1
Union (Tokio, Japan)	1
U. S. Military Academy	8
U. S. Naval Academy	6
U. S. Grant Univ	1
University College (Dublin)	1
Univ. of South California	1
University of Spain	1
University of Washington	11
University of the South	2
Upper Iowa	2

Ursinus	1
Utah	6
Utah Agr. Coll.	3
Vanderbilt	11
Vassar	8
Vermont Univ.	3
Victoria Univ.	2
Vincennes	2
Vincente Rocafuerte Coll. (Ecuador)	2
Virginia Agr. and Mech.	1
Virginia Mil. Inst.	28
Virginia Poly. Inst.	17
Virginia Univ.	8
Virginia Union Univ	1
Wabash	2
Wagner Coll.	1
Warsaw Poly. Inst. (Poland)	1
Washburn Coll.	2
Washington State Coll.	2
Washington and Jefferson	13
Washington and Lee Univ.	3
Washington Coll. (Md.)	4
Washington Univ.	20
Waynesburg	2
Webb Acad.	3
Wellesley	17
Wells	5
Wesleyan	16
Western Maryland	6
Western Normal	1
Western Reserve	3
Westminster Coll.	5
West Virginia Univ.	5
Wheaton	2
Whillar School (Peru)	2
Whitworth Coll.	1
Wilberforce Univ.	1
William and Mary	2
Willamette Univ.	2
Williamsburg Inst.	1
Wilmington	1
Williams	28
Wilson Coll. (Penna.)	3
Wilson Coll. (India)	3
Wisconsin	21
Wittenberg	5
Wooster	24
Worcester Poly. Inst.	29
Wyoming, Univ. of	1
Yale	45
Zurich Polytechnicum	3

ADMISSION ON SCHOOL CERTIFICATE, REGENTS' CREDENTIALS, AND EXAMINATIONS

The Registrar has charge of the credentials of those entering by Regents' credentials and by examinations, including the examinations conducted by the College Entrance Examination Board.

During the last sixteen years the number of applicants admitted by school certificate, by regents' credentials, and by examinations, has been as follows:

	'92-3	'93-4	'94-5	'95-6	'96-7	'97-8	'98-9	'99-00	'00-1	'01-2	'02-3	'03-4	'04-5	'05-6	'06-7	'07-8
Certificate	195	209	156	164	102	193	199	275	296	357	308	315	317	380	324	465
Regents' –	120	125	118	119	131	140	154	164	198	212	219	220	238	233	185	244
Exam. . . .	63	55	23	28	28	25	22	24	26	39	19	18	27	16	18	41
Coll. Ent. Exam. Bd.	..	..	..	..	..	..	..	..	..	9	11	20	27	29	37	33
N.Y.C. Ex.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	20	9
Total	378	389	297	311	361	358	375	463	520	617	557	573	609	658	584	792

The Regents' credentials mentioned above do not include medical and veterinary student certificates.

The discrepancy in numbers in the freshman class, if compared with those given in the Register, is due to students being registered back and to students admitted from colleges and universities partly to advanced standing.

The small number credited to entrance by examination would be much larger if those taking a single examination to make up a shortage in another group were included. It is not unusual to have a student enter partially by certificate, by examination, and by College Board examination. The combining of school with Regents' credentials, however, is not a common method of admission and is employed only in very exceptional cases.

It should be noted that the number entering entirely by our examinations is small. The preparatory schools are now better acquainted with our entrance requirements. Certain Regents' credentials admit to the College of Law, and under certain conditions relieve all students from taking an entrance examination in English. Regents' pass cards for single subjects are accepted if the grade be at least 75. The failure of several students to pass the entrance examination before completing the high school course has influenced others to complete their course in school and enter the University by certificate.

PETITIONS

The usual form of petition has been continued by the several Faculties. When the petition relates to routine matters and a mere change of registration of studies, a much simpler method has been adopted for changes in registration, and the strict enforcement of registration rules has made a marked improvement on the students' work. The Faculties of Arts and Sciences, Agriculture, Civil Engineering, Medicine, and Veterinary Medicine have filed the petitions in the offices of these Colleges and have notified the Registrar of the action taken; while the Law and Mechanical Engineering Faculties have returned the petitions to this office and the office has notified the students by mail.

The registration of old students for the first term takes place after the matriculation of new students. This allows new students a day to arrange their work before instruction begins. Old students' are not required to be at the University until the day preceding the one on which instruction begins. The system of registering new students in September in groups according as their names appear in the alphabet and of sending out by mail permits for registration has solved the overcrowding of registration and gives each student abundant time to get started aright.

BY CORNELL UNIVERSITY

	6	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	Total
Bachelors of Art	31	39	42	50	53	129	189	18	212	181	147	154	173	1945
Bachelors of Lit														52
Bachelors of Ph	43	49	44	26	40									484
Bachelors of Le	12	10	3	5										264
Bachelors of Sci	23	34	57	59	62	1								871
Bachelors of Sci														9
Bachelors of Sci														4
Bachelors of Sc	5											25	39	120
Bachelors of Sci	9													118
Bachelors of Ar		8	9	8	10	6	8	6	4	14	7	15	8	142
Bachelors of A														30
Bachelors of th		8	9	12	8	14	8	8	14	19	27			127
Bachelors of Ve														4
Doctors of Vete		3	4	6	7	9	10	13	16	25	27	32	18	170
Graduate in Ph														1
Pharmaceutical														2
Bachelors of Ci														161
Civil Engineers	23	24	15	30	35	48	31	38	37	57	52	90	69	785
Bachelors of M														57
Mechanical En	0	125	87	89	100	110	110	157	140	187	225	235	244	2452
Bachelors of La	1	81	105	25	52	44	32	45	49	52	61	46	40	1054
Doctors of Medi				66	59	26	53	60	55	74	59	72	58	582
Forest Enginee					1	5	2	2	5		1	1	..	17
Total First	7	387	375	376	427	392	443	512	537	609	606	670	649	9451
*Ph.B. in Hist.	3	2		2										
†B.S. in Chemis														
in Chem.														
in Natura														
in Scienc														
in (Physi														
in Mathe														
in Civil E														
in Electri														
‡M.E. in Electri	69	69	46	33	43	29	36	51						
in Marine								19						
in R'y Me								10						

	6	'97	'98	'99	'00	'01	'02	'03	04	'05	'06	'07	'08	Total
Architect														1
Civil Engineers														20
Mechanical Eng														1
Masters of Arts	1	10	10	16	14	20	19	22	12	23	13	10	22	249
Masters of Philo	3													10
Masters of Lett														9
Masters of Scien	8		1											84
Masters of Sci. i	3	5	5	3		8	7	3	2	10	11	9	12	84
Masters of Sci. i	1	1						1	1	1	1	1	3	13
Masters of Civil		1	3	2	1	3		3		3	1	1	2	39
Masters of Mech	15	6	2	7	4	10	4	7	6	9	4	4	5	140
Masters of Law	4	7	5											60
Doctor of Veter														1
Doctors of Scien	3	3				1								20
Doctors of Phil	14	11	23	7	19	20	23	20	13	21	19	19	22	291
Doctors of Law														2
Total Adv	52	44	49	35	38	62	53	56	34	67	49	44	66	1024
Grand Tot	79	431	424	411	465	454	496	566	566	676	655	714	715	10475

The inserted table gives the number admitted to graduation at the 1908 Commencement as well as those of former years. 10,475 degrees have been conferred, but there are some duplicates between the first and second degrees. The discrepancy between this table and the one given in the 1896–1897 report is due to a careful investigation while compiling data for the third Ten Year Book. One degree (M.D.) was conferred in 1899, but in 1907 was revoked because the candidate declined to accept it. One degree (D. V. M.) was conferred in June, 1905, but owing to a technicality was withdrawn and conferred again June, 1906, while another degree (D. V. M.) was conferred in 1907 but dated as June, 1906. Several degrees had been conferred and not recorded. Care has been taken to discriminate between closely allied degrees, but such have been grouped so as to show at a glance the number in each department.

Respectfully submitted,
DAVID F. HOY,
Registrar.

471426

APPENDIX XV

REPORT OF THE LIBRARIAN

To the President of the University:

SIR:—I have the honor to submit herewith my annual report on the University Library for the year ending June 30th, 1908.

The following table shows the additions made to the various collections composing the University Library and the total present extent of the Library:

	ADDITIONS 1907-08		PRESENT EXTENT	
	Volumes	Pamph.	Volumes	Pamph.
General Library	10,977	2,000	307,334	53,000
Law Library	1,550	....	38,735	....
Flower Veterinary Library	148	....	3,115	....
Barnes Reference Library	125	....	1,489	....
Forestry Library	15	....	1,107	....
Goldwin Smith Hall Library	1,081	....	1,081	....
Stimson Hall Medical Library	41	....	777	....
Totals	13,937	2,000	353,638	53,000

Of the accessions to the general library (numbering 10,977 volumes), 3,646 volumes were gifts. In the accessions to the general library are included 806 volumes added to the various seminary and laboratory collections. Of the additions to the Law library 464 volumes were gifts, as were also three volumes of the additions to the Flower library and 21 volumes of the additions to the Stimson Hall library and 315 volumes were gifts to the Goldwin Smith Hall library.

The establishment of the Goldwin Smith Hall library is perhaps the most noteworthy event of the year. This is, in a way, for the students in the literary and historical courses a counterpart of the collections of apparatus and tools in the laboratories and workshops. It consists chiefly of additional copies of books, already in the general library, used in undergraduate work in the humanities, providing in some cases many copies of the books most in demand in the larger classes. The collection now numbers about eleven hundred volumes and is distinctly a reference collection. The books have been arranged on open shelves in a commodious reading room and have been classified according to the departments of instruction represented.

Among the more important gifts of the year the largest consists of 368 volumes of legal works bequeathed to the Law library by the late F. M. Finch. The general library received from ex-President White, 279 volumes; from Theodore Stanton, of the class of '76, 168 volumes; from C. W. Wason, of the class of '76, a complete set of the valuable publications of the Rowfant Club, complete sets of which are rare; from Samuel Fraser, a complete set of the Ayrshire Herdbook in 30 volumes. To yourself and to Professors Burr, Carpenter, Hart, Hewett, Tarr and Willcox, the Library is also indebted for many valuable additions. From the Hispanic Society of America we received three of the Society's costly facsimile reprints of rare Spanish works, and from Mr. C. H. St. John Hornby, a copy of his privately printed edition of Dante's Purgatorio. From the National Government and from various state and municipal governments the usual supply of federal, state and municipal documents has been received. From the English, Canadian and Australian Patent Offices we continue to receive their valuable publications. For the gifts here mentioned, and for the numerous minor gifts received during the year, prompt acknowledgement of our thanks has been made to the respective donors.

Among the more important and costly works purchased during the year may be noted a fifteenth century manuscript of Cicero's Tusculanæ Disputationes, a fifteenth century manuscript of St. Bernard's Miracula in itinere germanico patrata; facsimiles of the Codex Vindobonensis of Livy, of the Orsini codex of Petrarch's Rime, and of a modern illuminated manuscript of Petrarch's Trionfi; a set of the Tudor facsimile texts; Fry's Description of the Great Bible; Proctor's Index to Early Printed Books; Recopilacion de leyes de los reynos de las Indias, 1681; Imhoof-Blumer's Kleinasiatische Münzen; De Morgan's Mémoires de la Délégation en Perse; Cassin's Mammalogy of the U. S. Exploring Expedition; Dumeril et Bocourt's Études sur les Reptiles; Dumeril et Bibron's Erpétologie générale; Boulenger's Fishes of the Nile; Gratiolet's Mémoire sur les plis cérébraux de l'homme; Rothschild's Extinct Birds; Saccardo's Sylloge

Fungorum; Semmler's Aetherische Öle; Sanmicheli, Fabbriche Civili; Watts' Dictionary of Chemistry. Complete sets of Analecta Hymnica Medii Aevi, Boletin de la Real Academia de la Historia, (Madrid), Comptes rendus des séances de la Société de Biologie, Dekorative Vorbilder, Igl Ischi, Publicationen aus den K. preussischen Staatsarchiven, Proceedings of the Society of Antiquaries of Scotland, Scottish Notes and Queries, and Vierteljahrschrift der astronomischen Gesellschaft. The following important sets have been completed: Bulletin de l'Académie Royale de Belgique, Kgl. Svenska Vetenskaps Academiens Forhandlinger, Hedwigia, Journal of the Royal Asiatic Society, Répertoire du Théatre français, Stenographische Berichte des Reichstags, Forschungen zur Brandenburgischen und Preussischen Geschichte, State Records of North Carolina, and Pflüger's Archiv für die gesammte Physiologie des Menschen und der Thiere.

Dr. A. C. White, assistant librarian in charge of the classification, reports that, in addition to the regular work of classifying the accessions to the general library, he has classified the Goldwin Smith Hall library of reference books for the College of Arts and Sciences and has made a duplicate shelf-list of these books on cards. He has also classified most of the books accumulated in past years by the College of Agriculture and the Experiment Station. These books together with the current accessions to the library of the New York State College of Agriculture have been incorporated in the shelf-lists of the University Library with the appended distinguishing mark *Agr*. He has also mounted our Græco-Egyptian papyri between panes of glass and has assigned a regular call number to each item of the collection. He also reports that, while the details of the new classification of American literature are not entirely satisfactory, he believes that it is a distinct advance and hopes to apply a smilar method to English literature beginning with the Shakespeare collection.

From the catalogue department, Miss Dame, the assistant librarian in charge, reports that during the year the number of volumes and pamphlets catalogued for the general catalogue was 13,385. For these 15,816 cards were written and 1,189 printed cards were obtained from the Library of Congress. The McKim collection of letters relating to slavery and the freedmen has been re-arranged and indexed. The work of filing the set of catalogue cards and slips received from the Library of Congress has been brought down to date, forming a complete copy of the printed card catalogue.

From the President White Library, Professor Burr reports a continuance of prosperity. The income of President White's "Warfare of Science" has remained a considerable resource, and has again been supplemented by many gifts received directly from Mr. White. Besides its purchases of current literature and the completion of several valuable series the library has added notably to the wealth of its other collections. From the sale of the library of the eminent German historian Knaake came rare treasures for that on the Lutheran Reformation. From those of the Duc d' Altemps, the Baroness von Güldenstubbs, and one or two less known collectors came precious things for our shelves of superstition and of persecution and tolerance. But the most numerous and notable accessions have been the finds of Professor Catterall for the collection on the French Revolution. And in all these fields we have added manuscripts as well as printed books.

Mr. Hermannsson, in charge of the Icelandic collection, reports that the classification and the preparation of the shelf-list of the collection have been completed and that the work on the catalogue continues. Besides provision for the maintenance and increase of the Icelandic collection, Mr. Fiske's will contained the following bequest:

> "I give and bequeath to the said Cornell University . . . the sum of Five Thousand ($5,000) Dollars, to have and to hold the same forever, in trust, nevertheless, to receive the income thereof, and to use and expend the said income for the purposes of the publication of an annual volume relating to Iceland and the said Icelandic collection in the library of the said University."

In pursuance of this provision there was issued this year the first volume of a series entitled "Islandica; an annual relating to Iceland and the Fiske Icelandic collection in Cornell University Library," containing a Bibliography of the Icelandic Sagas prepared by Mr. Hermannsson. The revision and the printing of this bibliography have occupied a large share of Mr. Hermannsson's time during the year.

Miss Fowler, who has charge of the Petrarch and Dante collections, reports that the classification, and the shelf-list of the Petrarch collection have been completed, and the shelf numbers added to the cards of the author catalogue, which has also been completed to date. A beginning has been made in the analysis of general periodicals for Petrarch material.

Mr. W. H. Austen, assistant librarian in charge of the reference and loan departments of the general library, reports that the Library has been open 309 days during the year, being closed on Sundays, Thanksgiving day, Christmas day, New Year's day, Fourth of July and Labor day. In addition to the number of University officers having access to the stacks, permission to use the stacks has been granted to 52 other readers, for special work. The number of registered users of the Library, as here given, includes only those who have drawn books for home use from the general library:

University officers	232
Students	565
Special borrowers	39

The number of reserved books in the reading rooms and seminary rooms in the Library building is 12,865, the number reserved at the delivery desk for special use is 1,658 and the number in locked presses 1,335. The number of volumes from the general library deposited in various laboratory and department collections in other University buildings is now 16,782. The number of volumes reported missing from these collections during the year 1907–1908 is as follows:

From the reading room shelves	30
From Seminary rooms	1
From department and laboratories	69

From the figures reported by Mr. Austen and by Miss Van Natten the following table has been compiled, covering the past two years. The use made of the Library, however, is shown only in part by this table, as no record is kept of the use made of the books on the open shelves in the building.

REFERENCE AND DEPARTMENT USE	1906–07	1907–08
Volumes used in reading rooms	84,154	73,072
Volumes sent to Seminary rooms	3,583	3,095
Volumes sent to departments	8,555	6,249
HOME USE		
Volumes from general library	19,780	20,388
Volumes from open shelf circulating library	3,991	6,627
Volumes loaned to other libraries	107	194
Total recorded use	120,170	109,625

It should be noted that in the statistics for the year 1906–1907 the figures for the open shelf circulating library are not for the full year, but only for the period from January 1st to June 30th, 1907. That the opportunity afforded by this collection of free access to the shelves for choosing books for general reading is appreciated by the students, seems evident from the fact that very nearly one fourth of all the books taken from the Library for home use were from this small collection of about 3,500 volumes. The number of students who have registered and drawn books from this collection is 806, and the number of readers who used books from this collection in the room without taking them for home use was 5,918.

Mr. W. W. Ellis, curator of the shelves, reports that, in addition to inspecting the new books before they leave the catalogue room for the correction of errors in call-numbers and book-plates, he has made the usual inventories. There are at present missing from their proper places in the stacks 311 volumes, as against 265 last year and 261 the year before; 215 volumes were found on the wrong shelves as compared with 300, 225 and 215 from the three preceding years. Three new cases of large drawers have been provided for the large collection of maps and plans of the University grounds and buildings. In these cases the plans can be much more readily consulted and kept in order. Detailed lists of the large accumulation of unbound duplicates and specimen numbers of periodicals have been prepared in the hope of being able to make use of them in exchanges with other libraries, or otherwise disposing of them.

By vote of the Library Council, at its November meeting, the privilege of drawing books from the general library for home use was extended to all regularly matriculated students of the University, subject to the general regulations of the Library.

In the first term of the year Mr. Austen gave his regular course of lectures on the use of books, which was followed by a course of instruction in practical work during the second term. In the second term the Librarian gave his regular course of lectures on general bibliography. The annual record of publications by the University and its officers has been prepared by Miss Dame and is submitted herewith. The list of donors which accompanies this report has been prepared by Miss Thornburg.

Respectfully submitted,

GEO. WM. HARRIS,

Librarian.

APPENDIX XVI

PUBLICATIONS, 1907–1908

Under the Auspices of the University

The University records. 7 s. no. 6–8 s. no. 4. *2m.* Ithaca, 1907–1908. 5 nos. 8°. *Illus.*

Contents:—vii. 6. The register, 1906–1907.

viii. 1. Fifteenth annual report of President Schurman, 1906–1907.

2. The register, 1907–1908.

3. Announcement of the seventeenth summer session, July 6 to Aug. 14, 1908.

4. The College of Arts and Sciences.

Abstracts of work done in the laboratory of veterinary physiology and pharmacology, under the direction of P. A. Fish. No. 5. Ithaca, 1908. 8°. pp. 48 + (1). *Portrs.* and *plates.*

The Cornell civil engineer and transactions of the Association of Civil Engineers of Cornell University. Vol. xv., no. 3–xvi., no. 9, May, 1907–June, 1908. *m.* Ithaca, 1907–1908. 11 nos. 8°. *Illus.*

The Cornell countryman. Vol. v., no. 1–9. Oct., 1907–June, 1908. *m.* Ithaca, 1907–1908. 9 nos. 8°. *Illus.*

Cornell studies in classical philology, edited by C. E. Bennett, J. R. S. Sterrett and G. P. Bristol. No. xviii. [New York], 1908. 8°. pp. iii. + 128.

xviii. Index to the fragments of the Greek elegiac and iambic poets as contained in the Hiller-Crusius edition of Bergk's Anthologia lyrica; by M. C. Lane.

Directory of resident officers of instruction and government and of students, Oct. 10, 1907. [Ithaca, 1907.] sm. 8°. pp. 39.

Same, Feb. 12, 1908. [Ithaca, 1908]. sm. 8°. pp. 38.

Fifth annual music festival, Cornell University, April 29 and 30, May 1 and 2, 1908. Ithaca, 1908. 8°. pp. 52 + (3). *Portrs.*

Islandica: an annual relating to Iceland and the Fiske Icelandic collection in Cornell University Library, edited by G. W. Harris. Vol. i. Ithaca, 1908. 8°. pp. (13) + 126.

i. Bibliography of the Icelandic sagas and minor tales; by H. Hermannsson.

The journal of physical chemistry; edited by W. D. Bancroft [and] J. E. Trevor. Vol. xi., no. 7–xii., no. 6, Oct., 1907–June, 1908. *m*. Ithaca, 1907–1908. 9 nos. 8°. *Illus.*

"Issued monthly except in July, August and September."

The philosophical review; edited by J. E. Creighton and E. Albee, with the co-operation of J. Seth. Vol. xvi., no. 4–xvii., no. 3, July, 1907–May, 1908. *2m*. New York, 1907–1908. 6 nos. 8°.

The physical review; a journal of experimental and theoretical physics, conducted by E. L. Nichols, E. Merritt and F. Bedell. Vol. xxv.–xxvi., July, 1907–June, 1908. *m*. New York, 1907–1908. 2 v. 8°. *Illus.*

Publications of Cornell University Medical College: studies from the Department of Pathology. Vol. vii. New York, 1907. 8°. *Illus.*

Bulletin of the Agricultural Experiment Station. No. 246–254, May, 1907–May, 1908. Ithaca, 1907–1908. 9 nos. 8°. *Illus.*

Cornell reading-course for farmers. 8 s. no. 36–38, Nov., 1907–Jan., 1908. *m*. Ithaca, 1907–1908. 3 nos. 8°. *Illus.*

Cornell reading-course for farmers' wives; M. Van Rensselaer, supervisor. 6 s. no. 26–28, Nov., 1907–March, 1908. *2m*. Ithaca, 1907–1908. 3 nos. 8°. *Photo-engrs.*

Cornell rural school leaflet, A. G. McCloskey, editor. Vol. i.. no. 1–9, with supplements, Sept., 1907–May, 1908. Ithaca, 1907–1908. 9 nos. 8°. *Illus.*

Home nature-study course; by A. B. Comstock and J. W. Spencer. N. S. vol. iv., no. 1–4, Oct., 1907–May, 1908. *2m*. Ithaca, 1907–1908. 4 nos. 8°. *Illus.*

Twentieth annual report of the Agricultural Experiment Station, 1907. Ithaca, 1907. 8°. pp. xix. + (1) + 264. *Illus.*

U. S. Department of Agriculture, N. Y. Section of the Climatological Service of the Weather Bureau. Report. Vol. xix., no.6–

xx., no. 5, June, 1907–May, 1908. *m*. Ithaca, 1907–1908. 13 nos. 4°. *Maps*.

In co-operation with Cornell University.

——Weekly weather bulletin. Series of 1907, no. 13–23, series of 1908, no. 1–11, 2 July, 1907–30 June, 1908. [Ithaca], 1907–1908. 22 broadsides. *Maps*.

In co-operation with Cornell University.

By Officers

In the present list are included the titles of books, pamphlets and contributions to periodicals, transactions, etc., published by officers and fellows of the University during the period extending from July 1, 1907, to June 30, 1908, with some titles omitted in previous lists.

Adams, J. Q., *jr*. The Cyprian conqueror; or, The faithless relict. (Modern Language Notes, March, 1908, vol. xxiii., p. 65.)

—— John Heywood's The play of the weather. (*Same*, Dec., 1907, vol. xxii., p. 262.)

—— Robert Greene's What thing is loue? (*Same*, Nov., 1907, vol. xxii., p. 225.)

—— Timon of Athens and the irregularities in the first folio. (Jour. of English and Germanic Philology, Jan., 1908, vol. vii., p. 53.)

—— [Review of] Anthony Brewer's The love-sick king; edited by A. E. H. Swaen. (Modern Language Notes, Dec., 1907, vol. xxii., p. 258.)

Albee, E. [Review of] An outline of the idealistic construction of experience; by J. B. Baillie. (Philosophical Review, Sept., 1907, vol. xvi., p. 538.)

—— *editor*. The philosophical review, 1907–1908.

Atkinson, G. F. Notes on some new species of fungi from the United States. (Annales Mycologici, Jan., 1908, vol. vi., p. 54.)

—— *and* **C. W. Edgerton.** Preliminary note on a new disease of the cultivated vetch. (Science, 20 Sept., 1907, N. S. vol. xxvi., p. 385.)

—— —— Protocoronospora, a new genus of fungi. (Jour. of Mycology, Sept., 1907, vol. xiii., p. 185.)

Austen, W. Congressional bills and reports in libraries. (Papers and Proceedings of the 29th Annual Meeting of the Amer. Library Assoc 1907, p. 153.)

—— Educational value of reference room training for students. (*Same*, p. 274.)

—— University branch libraries. (Library Jour., June, 1908, vol. xxxiii., p. 220.)

—— Using the library. (Cornell Era, April, 1908, vol. xl., p. 314.)

Bailey, E. J. English masterpieces; outlines and questions. No. 1–4. Albany, 1907. 4 nos. 16°.

—— The novels of George Meredith, a study. New York, 1907. 12°. pp. xii. + 226. *Port.*

—— Studies in English masterpieces [10 articles]. (Amer. Education, Sept., 1907–June, 1908, vol. xi.)

Bailey, L. H. Botany; an elementary text for schools. 12th ed. New York, 1907. sm. 8°. pp. xiv. + 431 + (1). *Illus.*

—— The forcing book; a manual of the cultivation of vegetables in glass houses. 7th ed. New York, 1908. 16°. pp. xiii. + 266. *Illus.* (Rural science series.)

—— Garden making; suggestions for the utilizing of home grounds. 12th ed. New York, 1908. 16°. pp. vii. + 417. *Illus.* (Rural science series.)

—— The nursery book; a complete guide to the multiplication of plants. 11th ed. New York, 1907. 16°. pp. x. + 365. *Illus.* (Rural science series.)

—— Practical garden book. New York, 1908. sm. 8°.

—— The principles of fruit-growing. 10th ed. New York, 1908. 16°. pp. xvii. + 516. *Illus.* (Rural science series.)

—— The principles of vegetable gardening. 6th ed. New York, 1908. 16°. pp. x. + 485. *Illus.* (Rural science series.)

—— The pruning book; a monograph of the pruning and training of plants as applied to American conditions. 8th ed. New York, 1907. 16°. pp. ix. + 545. *Illus.* (Rural science series.)

—— Experiment and research. (Cornell Countryman, May, 1908, vol. v., p. 246.)

—— On the training of persons to teach agriculture in the public schools. (Bulletin of the U. S. Education Bureau, 1908, no. 1, pp. 1–53.)

—— *editor.* Cyclopedia of American agriculture. Vol. ii–iii. New York, 1907–1908. 2 v. 4°. *Illus.*

—— *editor*. The principles of agriculture; a textbook for schools and rural societies. 12th ed. New York, 1907. 16°. pp. xv.+300. *Illus*. (Rural science series.)

Baldwin, W. M. The ductus pancreaticus accessorius in man [abstract]. (Amer. Jour. of Anatomy, May, 1907, vol. vii., p. 66.)

Bancroft, W. D. The electrochemistry of light. I.–III. (Jour. of Physical Chemistry, April–June, 1908, vol. xii., pp. 209, 318.)

—— Non-miscibility and the mass law. (*Same*, Jan., 1908, vol. xii., p. 30.)

—— The problem of chemical affinity. (*Same*, Feb., 1908, vol. xii., p. 75.)

—— The relation of electroplating to electrolytic analysis. (*Same*, Jan., 1908, vol. xii., p. 36.)

—— [Papers from the laboratory of W. D. Bancroft, published in the Jour. of Physical Chemistry, 1907–1908, vol. xi.–xii.]

Vol. xi. Action of ammonium persulphate on metals, by J. W. Turrentine, p. 623.

Vol. xii. Electrolytic determination of silver and copper, by H. W. Gillett, p. 26; Electrolytic corrosion of copper-aluminum alloys, by W. S. Rowland, p. 180; Reversed electrolysis, by J. W. Turrentine.

Professor Bancroft has also published 20 book reviews in the Jour. of Physical Chemistry.

Bedell, F., *editor*. The physical review, 1907–1908.

Bennett, C. E. A Latin grammar. Revised ed. Boston, 1908. sm. 8°. pp. x.+280. (Bennett's Latin series.)

Bentley, I. M. Psychical research.—Psychology. (New international year book, 1907, p. 657.)

—— [Review of] The subconscious; by J. Jastrow. (Philosophical Review, Jan., 1908, vol. xvii., p. 93.)

—— *associate editor*. The psychological index, 1907.

—— *See also* **Titchener, E. B.,** *and* **I. M. Bentley,** *editors*. Cornell University studies in psychology.

Blews, R. R. The German Christian Student Conference. (Intercollegian, Nov., 1907, vol. xxx., p. 33.)

Bradley, J. C. A case of gregarious sleeping habits among aculeate hymenoptera. (Annals of the Entomological Soc. of America, June, 1908, vol. i., p. 127.)

—— Constitution, by-laws, list of honorary fellows, fellows and members of the Entomological Soc. of America and Proceedings of first three meetings. (*Same*, March, 1908, vol. i., p. 4.)

—— Evaniidæ (ensign flies), an archaic group of hymenoptera. (Transactions of the Amer. Entomological Soc., 1908, vol. xxxiv., p. 101.)

—— Minutes of the Boston meeting of the Entomological Society. (Entomological News, Oct., 1907, vol. xviii., p. 368.)

Also in Canadian Entomologist, 1907, vol. xxxix., p. 357; in Psyche, 1907, vol. xv, p. 16; in Science.

—— Notes on two amphipods of the genus corophium. (University of California Publications: Zoology, 1908.)

—— A plea on behalf of the systematic biographer. (Science, 1907.)

Brown, H. B. Algal periodicity in certain ponds and streams. (Bulletin of the Torrey Botanical Club, May, 1908, vol. xxxv., p. 223.)

Browne, A. W., *and* **F. F. Shetterly.** On the oxidation of hydrazine. II. (Jour. of the Amer. Chemical Soc., Jan., 1908, vol. xxx., p. 53.)

Bull, C. S. Case of orbital tumor recurring fourteen years after removal of the eyeball. (Medical Record, 16 May, 1908, vol. lxxiii., p. 836.)

—— The deep intraocular lesions of infantile inherited syphilis and tardy inherited syphilis from the standpoint of pathology, prognosis and treatment. (*Same*, 4 April, 1908, vol. lxxiii., p. 549.)

—— Discussion on the induction of premature labor in the retinitis albuminurica of pregnancy. (*Same*, 11 Jan., 1908, vol. lxxiii., p. 82.)

—— Operations for secondary cataract. (Jour. of the Amer. Medical Assoc., 22 June, 1907, vol. xlviii., p. 2152.)

—— The post-operative history of sixty cases of simple chronic glaucoma. 2d series. (Transactions of the Amer. Ophthalmological Soc., vol. xi.)

Also in Ophthalmic Record, 1907, vol. xvi., p. 278.

—— Some of the rarer lesions of the eye due to chronic lithæmia. (Annals of Ophthalmology, 1907, pt. 3.)

—— Two cases of injury to the eye by pieces of steel, with location of the foreign bodies by the skiagraphic method. (Medical Record, 18 April, 1908, vol. lxxiii., p. 668.)

Burnett, S. H. The clinical pathology of the blood of domesticated animals. Ithaca, 1908. 8°. pp. xi. + 153.

—— The control of an outbreak of anthrax. (Amer. Veterinary Review, May, 1908, vol. xxxiii., p. 136.)

Burr, G. L. The place of geography in the teaching of history. (N. E. History Teachers' Assoc., 22d meeting, Oct. 19, 1907, p. 1.)

—— [Review of] Acta Aragonensia; herausgegeben von H. Finke. (Amer. Historical Review, April, 1908, vol. xiii., p. 566.)

—— [Review of] Geschichte der Päpste seit dem Ausgang des Mittelalters; von L. Pastor. 4^{er} Bd. 2^{e} Abt. (*Same*, p. 635.)

—— [Review of] A history of the inquisition of Spain, Vol. iv,; by H. C. Lea.—History of sacerdotal celibacy in the Christian church [3d ed. revised]; by H. C. Lea. (*Same*, Jan., 1908, vol. xiii., 337.)

Buxton, B. H. Absorption from the peritoneal cavity. Pt. 8. Absorption of typhoid bacilli in the immune animal. (Jour. of Medical Research, May, 1907, vol. xvi., p. 251.)

—— *and* **M. Tracy.** *Same.* Pt. 9. Preparation of the peritoneal cavity by injections of nuclein and oil. (*Same*, Oct., 1907, vol. xvii., p. 1.)

The last two articles are reprinted in Publications of Cornell University Medical College: Studies from the Department of Pathology, 1907, vol. vii.

—— *See also* **Teague, O.,** *and* **B. H. Buxton.** Die Agglutination in physikalischer Hinsicht. IV–V.—Die gegenseitige Ausflockung von Kolloiden.

Camac, C. N. B. Diabetes and the alkaline treatment. (Medical Record, 25 April, 1908, vol. lxxiii., p. 710.)

—— The heart in infectious diseases: adult life. (*Same*, 29 June, 1907, vol. lxxi., p. 1090.)

—— Some of the recent important contributions to our knowledge of heart disease. (University of Pennsylvania, Medical Bulletin, May, 1907, vol. iii., p. 30.)

A clinic delivered to 3d and 4th year medical students of the University of Pennsylvania, Feb. 23, 1907.

—— *editor*. Counsels and ideals from the writings of W. Osler. 3d and 4th impression. London, 1907. sm. 8°. pp. 14+277.

Carver, W. B. [Review of] Mehrdimensionale Geometrie, ii. Teil, Die Polytope; von P. H. Schoute. (Bull. of the Amer. Mathematical Soc., May, 1908, vol. xiv., p. 393.)

Catterall, R. C. H. [Review of] An advanced history of Great Britain from the earliest times to the death of Queen Victoria; by T. F. Tout. (Amer. Historical Review, Oct., 1907, vol. xiii., p. 193.)

—— [Review of] Die polnischen Provinzen Russlands unter Katharina ii. in den Jahren 1772–1782; von U. L. Lehtonen. (*Same*, April, 1908, vol. xiii., p. 575.)

—— [Review of] A short history of social life in England; by M. B. Synge. (*Same*, Oct., 1907, vol. xiii., p. 194.)

Chamot, E. M. Arsenic, Poisoning by. (Appendix to the Reference handbook of the medical sciences, 1908, p. 366.)

—— Operating results of the water purification plant at Ithaca, N. Y. (Engineering Record, 23 May, 1908, vol. lvii., p. 672.)

—— [Review of] Lehrbuch der gerichtlichen Chemie; von Baumert, Dennstedt and Voigtländer. (Jour. of the Amer. Chemical Soc., June, 1908, vol. xxx., p. 1042.)

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CORNELL UNIVERSITY

THE

PRESIDENT'S REPORT

1908-1909

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SEVENTEENTH ANNUAL REPORT

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1908-1909

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TABLE OF CONTENTS

PAGES

I STATE SUPPORT AND CONTROL OF UNIVERSITY 5–9
  Bill Providing for the Appointment of Trustees by the Governor 8–9
  Cornell a State-and-Endowed University 9

II TRUSTEES AND FACULTIES 10–16
  Changes in the Board of Trustees 10
  Mortality in the Faculty 10–11
  Retirement of Dean Crane 11–12
  Leaves of Absence 12
  Promotions in the Faculty 12–13
  New Appointments to the Faculty 13–15
  Faculty Statistics 15
  Salaries of Professors and Instructors 15–16

III STUDENTS 16–21
  Statistics of Enrollment 16–19
  Geographical Distribution of Students 19
  A New Residential Hall 19–21

IV COLLEGES AND DEPARTMENTS 21–43
  The Graduate School 21–22
  The College of Arts and Sciences 22–24
  The College of Law 24–25
  The Medical College 26–29
  The New York State Veterinary College 29–31
  The New York State College of Agriculture 31–36
  The College of Architecture 36–37
  The College of Civil Engineering 37–38
  The Sibley College of Mechanical Engineering and Mechanic Arts 38–40
  The Summer Session 40–41
  The Military Department 41–43

V THE LIBRARY 44–45

VI THE INFIRMARY 45–46

VII FINANCES 47

VIII NEEDS OF THE UNIVERSITY 47–48

CONTENTS

APPENDICES

I Changes in the Staff of Instruction.. IX
II Report of the Dean of the University Faculty........................ IX–XXXI
III Report of the Dean of the Faculty of Arts and Sciences............... XXXI–LIV
IV Report of the Director of the College of Law........................ LIV–LVIII
V Report of the Director of the Medical College........................ LIX–LXVIII
VI Report of the Secretary of the Ithaca Division of the Medical College ... LXIX–LXXVI
VII Report of the Director of the new York State Veterinary College.... LXXVII–LXXXI
VIII Report of the Director of the new York State College of Agriculture LXXXI–XCI
IX Report of the Director of the College of Architecture................. XCII–XCIX
X Report of the Director of the College of Civil Engineering............. XCIX–CII
XI Report of the Director of the Sibley College of Mechanical Engineering and Mechanic Arts.............. CII–CV
XII Report of the Director of the Summer Session........................ CV–CXI

XIII Report of the Warden of Sage College CXII–CXV
XIV Report of the Registrar........... CXVI–CXXI
XV Report of the Librarian........... CXII–CXXVII
XVI Publications by University Officers.. CXXVIII

REPORT OF THE TREASURER*.......................... 1–71
Agricultural College, State........................ 3
Appendix of Detailed Schedules................. 15
Carnegie Foundation.......................... 4
Cash Statement............................ 5–6
Deficit.................................. 3
Endowment—Productive Funds................. 6–14
General Statement.......................... 3
Productive Funds.......................... 6–14
Property Statement.......................... 14
Reappropriations.......................... 5
Schedules, detailed list of...................... 15
Veterinary College, State...................... 4
Western Lands.............................. 14

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*The index here given covers only pages, 3 to 14 of the Treasurer's Report, but on page 15 will be found a list of Schedules which will serve as an index for pages 15 to 71.

PRESIDENT'S REPORT

FOR 1908–1909

To the Board of Trustees:

The President of the University has the honor to submit to the Board of Trustees the following Report for the year 1908–1909. The Report covers the period from September 30th, 1908, to September 30th, 1909.

STATE SUPPORT AND CONTROL OF UNIVERSITY

The increasing appropriations made by the State of New York for the Agricultural College and the Veterinary College have raised the question whether in view of its large participation in the maintenance of the University the State should not also participate more largely and actively in its control. The vital dependence of these colleges upon the other departments of the University, the relation of Cornell University to the State, and the reasons for a considerable measure of State control in the government of the University were lucidly described by Dr. Andrew S. Draper, State Commissioner of Education, in an address given before the joint meeting of the Associated Academic Principals and the

State Teachers' Association, in Syracuse, December 29, 1908. Here are a few extracts from that address:

"I do not often find myself in the attitude of a critic of the Empire State, but it must be said that New York is far from the front in developing policies and establishing instrumentalities to aid either the mechanical or the agricultural industries. With the prestige and the advantage of being an old state, it would be strange if we did not suffer some of the disadvantages of it. Let me point out what the educational disadvantages concerning agriculture are, and *why* they are, and let us believe that we may cure them if we will.

"Forty-six years ago the general government provided a gift of thirty thousand acres of land to each state for each senator and representative in Congress, upon condition that the state would use the proceeds for the propagation of a university which, without ignoring other branches of liberal learning, would lay particular emphasis upon those bearing upon agriculture and the mechanic arts. The act was passed after a long struggle.

"The newer states had the larger part in procuring its passage, and they were the quickest and the keenest to claim their rights under it. They had the freer democracy. They were in the pioneer stage. They lacked nothing in assertiveness. They wanted all that the older states had, and much more. Universal education became speedily a universal passion. Their institutions were yet in the liquid state. The federal grant would aid their already existent state universities, or support others. They had the system which could seize the opportunity. Every one of them managed to comply with the terms and lay hold upon the grants. For the twenty-five years following the war, they often had a hard time complying with the requirements, but they held on. Then the country had filled up. More acres were put under the plow, and all the acres were made more productive. Wealth grew. In the eighties, and still more in the nineties, land grant institutions had developed more highly educated constituencies, and, quite as important, they began to show the people who were engaged in the commercial, manufacturing, transportation, and agricultural industries, how to make more money. That settled it. Nothing succeeds like success. They went after more money and now each gets $50,000 per year beyond the proceeds of the land grants. And now, again, every one of the newer states puts into its state university or land grant college more than it gets from the federal grants, and some of them twenty times as much. They are not fools: they are more intent than ever on having all of the education that any state has, with some to spare; the roads are filled with the coming and going of students. Nebraska and Wisconsin each has a larger proportion of college students than either New York or Massachusetts. There are graduates, and therefore trained agents, of the universities in every village and upon almost every farm; and all the people stand ready to make further investments where they will pay. They are not

> doing it for mere love. They see that there is money in it. Added to the natural educational enthusiasm, that concludes matters.
>
> The older states did practically nothing. They are only now opening their eyes. Their ignorance of patent facts is as monumental as it is stupid. Of course, the old order is in the way. It is the habit of the old order to question the academic quality of the new order of institutions. One college president laments that the people put their hands into the people's treasury to promote higher education. Another challenges the applicability of liberal learning to the industries. Still another says, as bluntly as it can be said in classical phrase, that it is all wrong to educate people out of their environment. And yet another looks through spectacles that are befogged with the literary and philosophical training of the ages, and stoutly denies that what actually *is*, can be. It is not strange. Neither men nor institutions can be made over in a minute, after they are fifty years of age. The old order is the persistent expression of social, political, and educational aristocracy. The new order is the advance agent of educational and industrial democracy. The new order is as sure to persist as the Republic is to endure, for it is only the logical outworking of the democracy of the nation. It is sure to go in every state, for the nation will never endure half slave and half free educationally, any more than politically.
>
> In New York we are as yet in the old order. We are not quite so hidebound as some who live in the still more educationally effete East. Some men and some facts have helped us. But we are a long way from being out in the clear sunlight. We almost lost the advantage of the federal grants to higher learning for the masses and the industries of the people, and would have done so absolutely but for Andrew D. White and Ezra Cornell, both senators of this State; one a scholar and educational organizer, who had been a professor in the State University of Michigan, and the other an inventor and industrial organizer, a millionaire, and withal a philanthropist. Between them, with these qualities, and being in the Senate, they got up the best scheme that was practicable under the circumstances, *rescued the grant to New York from utter failure by providing an endowment and creating an institution which could take it and try to meet the State's obligations concerning it. The State did nothing. It merely stood by and benevolently let the thing be done. The result was Cornell University.*"

Commissioner Draper adds that Cornell University does not sustain the same relation to the State of New York as the western state universities sustain to their respective states:

> "*It* [Cornell University] *does not, and it can not, because it is not under popular control, and can not be responsive to the natural impulses of our unfolding political and industrial democracy, nor can its practical ministrations be accepted by the people as they would be if there were the sense of public proprietorship in it. It is not the fault of a board of*

trustees, a president, a dean, or a professor. The trouble is beyond either. It will never be cured unless the university becomes the real instrument of the State."

The sentiments expressed by Commissioner Draper regarding the government of Cornell University were voiced in the legislature of the State of New York, and a bill was last year passed and signed by the Governor which gave the State an enlarged share in the government and control of the University and cannot fail to develop in the people a new "sense of public proprietorship in it." Hitherto, the State has been represented on the Board of Trustees by the Governor, Lieutenant-Governor, the Speaker of the Assembly, Commissioner of Education, and the Commissioner of Agriculture, *ex-officio*. But the elective Trustees, thirty in number, have been chosen, two-thirds by the Board itself and one-third by the alumni, for a term of five years, so that of the six new Trustees annually selected for a term of five years four were chosen by the Board and two by the alumni. The amendment to the charter, passed last winter, provides that of the four Trustees hitherto annually elected by the Board for a term of five years, one shall be appointed annually by the Governor of the State with the advice and consent of the Senate. Beginning with June last, therefore, the elective Trustees of Cornell University consist of thirty members, of whom five have been appointed by the Governor of the State, ten elected by the alumni of the University, and fifteen elected by the Board itself. Along with the Governor and other State officers who are *ex-officio* Trustees, the State will henceforth have ten members on the Board as The alumni also have, and when it is recalled that the Board of Trustees itself elects the rest of the elective Trustees, it will be seen that the State of New York now has equal voice with the alumni of the University in the government of Cornell. If with the increase of State appropriations in the future it seems desirable that the State should have a larger measure of that control which Commissioner Draper demands for it, the result can be very simply effected by a further amendment of the charter which would authorize the Governor of the State with the advice and consent of the Senate to appoint annually, for a term of five years, one of the three Trustees still elected by the Board itself. In that event one-third of the elective Trustees would be appointed by the State of New York, one-third elected by the alumni, and the remaining one-third chosen by the Board itself, while the State of New York would still retain on the Board the Governor and other *ex-officio* Trustees, thus giving the State fifteen of all the Trustees. Or if the State desired complete control, this could be easily accomplished by converting all trusteeships now filled by the Board into trusteeships filled by the State.

In any event the plan of governing a university, which sustains the peculiar relations to the State of New York which is occupied by Cornell, by a Board of Trustees, who represent both the State and the alumni, seems a peculiarly happy one, and while this amendment of the charter undoubtedly marks a new era in the history of Cornell University, it is not at all improbable that it may also mark a new era in the history of the administration and government of American universities. This new legislation regarding Cornell University accentuates the inadequacy of the classification of American universities as state and endowed. The classification should be three fold and not two fold; for in the United States we have endowed universities, state universities, and Cornell University, which is both an endowed and a state university. Like the endowed universities it is (in part) self-supporting and self-governed and like the state universities it is (in part) state-supported and state-governed. It forms a class by itself, being the only *state-and-endowed* university in the United States.

TRUSTEES AND FACULTIES

In accordance with the legislation described in the preceding section, Governor Hughes has appointed the following gentlemen members of the Board of Trustees: Frederick C. Stevens, Attica, for a term of five years; Henry W. Sackett, New York City, for a term of four years; Thomas B. Wilson, Hall's Corners, for a term of three years; Almon R. Eastman, Waterville, for a term of two years; John N. Carlisle, Watertown, for a term of one year. The alumni elected Willard Beahan and Charles C. Dickinson to fill the vacancies caused by the expiration of the terms of their predecessors, while the Board itself re-elected Stewart L. Woodford, C. Sidney Shepard, and Walter C. Kerr to succeed themselves as Trustees for a further term of five years. William F. Pratt of Batavia, was elected by the New York State Grange a Trustee of Cornell University for the year 1909–1910. The Board of Trustees accepted the resignation of Hiram W. Sibley and gave expression to their sentiments in the following resolution:

> "*Resolved*, That the Trustees place upon record an expression of their deep regret that Mr. Sibley's other interests and duties render it necessary for him to withdraw from this Board, of which he has for many years been a highly esteemed member, thus terminating the official relations which have so long and so honorably existed between his family and Cornell University; and, in voicing their regret at this separation, the Trustees desire once more to assure Mr. Sibley of their genuine and grateful appreciation of the support which he and his father before him have given to the cause of scientific and technical education at this University—support so generous and vital that it makes the name of 'Sibley' an abiding heritage of Cornell."

The University Faculty, and particularly the Faculty of the College of Agriculture, sustained a great loss during the year in the death of Mark Vernon Slingerland, Assistant Professor of Economic Entomology. A life long student, a devoted investigator, a scientist of high standing, he possessed the happy and unusual faculty of bringing to the practical aid of the agricultural industries of the State the results of scientific research and investigation.

The entire world has been told of the death of Ross Gilmore Marvin, the Cornell instructor who has written his name where men will read it as long as they are interested in exploration or the history of polar expeditions. News of his death came to the President of the University in the following telegram from Commander Robert E. Peary:

> "BATTLE HARBOR, via Cape Ray, N. F.,
> September 10, 1909.
>
> Deeply regret inform you Professor Marvin drowned April tenth forty-five miles north of Cape Columbia while returning in command my third supporting party. Professor Marvin had planted the Cornell colors beyond the farthest of Nansen and Abruzzi. His loss great to expedition and me personally."

Throughout the community expressions of grief were universal at the sacrifice of this young life. Those who knew him best had been deeply impressed by his quiet, modest manner, his kindly disposition, his earnestness and sincerity. "We mourn his loss as a friend," says one of his colleagues in the Faculty of Civil Engineering, "and as one giving promise of greater achievements, even, than those amid which he gave up his life."

The year was marked by the retirement of Thomas Frederick Crane, Professor of the Romance Languages and Literatures and Dean of the University faculty. Dean Crane was a member of the original Faculty when Cornell opened her doors in 1868, and as Assistant Professor, Secretary of the Faculty, Professor, Head of Department, Dean of the Faculty of Arts and Sciences, Acting President during the second half of the year 1899, and, finally, as Dean of the University Faculty since 1902, he has given more than forty years of active service to Cornell University. The measure of influence of such a lifetime of devoted service can never be told. Not only has his success as a teacher and administrative officer been marked, but during forty years he has stood pre-eminent in this University community as a living exemplar of that idea of liberal culture to which the College of Arts is dedicated. Happily he is still to remain here as emeritus professor.

Dean Crane retires upon a pension furnished to the University by the Carnegie Foundation for the Advancement of Teaching. The names of other professors who have similarly retired will be found in the Report for 1907–1908 (p. 11).

Professor Crane had been Dean of the University Faculty which up to June last had charge also of the graduate work of the University. The Graduate School was, however, organized last year with a separate Faculty consisting of the professors and assistant professors who give instruction to graduate students. Of this new Faculty of the Graduate School Professor Ernest George Merritt was appointed Dean.

The following sabbatic leaves of absence during the year 1909–1910, have been granted: Professor R. S. Tarr, for one year; Professor H. C. Elmer, for one year; Professor R. C. Carpenter, for one year; Director L. H. Bailey, for one year; and Professors F. Bedell, F. A. Fetter, and R. C. H. Catterall, for the second term.

The following promotions to professorships were made among the assistant professors of the University: H. C. Elmer, to be Professor of Latin; G. D. Harris, to be Professor of Paleontology and Stratigraphic Geology; O. M. Brauner, to be Professor of Drawing and Painting; E. W. Olmsted, to be Professor of the Romance Languages and Literatures; W. Strunk, Jr., to be Professor of the English Language and Literature; C. L. Durham, to be Professor of Latin; H. A. Sill, to be Professor of Ancient History; C. F. Hirshfield, to be Professor of Power Engineering; E. W. Kemmerer, to be Professor of Economics and Finance; G. W. Cavanaugh,

H. H. Whetzel, E. O. Fippin, G. F. Warren, W. A. Stocking, Jr., G. N. Lauman to be professors in the College of Agriculture; and Doctors I. Haynes, C. N. B. Camac, J. A. Hartwell, and W. J. Elser to be professors in the Medical College in New York City.

The following new appointments to professorships were made during the year:

Martin Wright Sampson was appointed Professor of the English Language and Literature and head of the department. Born in Cincinnati in 1866, Mr. Sampson received the degree of A.B. from the University of Cincinnati in 1888, and the degree of A.M. from the same institution in 1890. In 1887–1888 he attended the University of Munich, continuing his studies in Paris in 1891, in London in 1899, in Dublin in 1901, in London in 1901–1902, and in Dresden in 1906–1907. From 1889 to 1891 he was instructor in English in the University of Iowa; from 1892 to 1893 he was assistant professor in Leland Stanford Junior University and from 1893 to 1906 he was professor at Indiana University. He was called to Cornell University as Acting Professor of English for the second term of the year 1907–1908. He has written numerous reviews in literary and scholarly periodicals and has edited Milton's "Lyric and Dramatic Poems," Webster's Plays, Mrs. Gaskell's "Cranford," and Irving's "Sketchbook." He is joint author of a textbook on "Written and Oral Composition," and translator of Singer's "The Dresden Gallery."

William Wistar Comfort was appointed Professor of the Romance Languages and Literatures and head of the department. Mr. Comfort was born in Philadelphia in 1874. Graduating at Haverford College in 1894, he continued his studies in Harvard University, receiving from Harvard his A.B. in 1895, A.M. in 1896, and Ph.D. in 1902.

During the year 1897-1898 he was instructor in Haverford College, and after three years of study abroad he returned to Haverford in 1901 where he became first instructor and afterward Associate Professor of the Romance Languages. Mr. Comfort has edited three textbooks, and has been an occasional contributor to the "Nation," "Atlantic Monthly," "Quarterly Review," "Athenæum," and "Modern Philology," and publications of the Modern Language Association.

GRAHAM LUSK was appointed Professor of Physiology in the Medical College in New York City. Born in 1866, he received the degree of Ph.B. from Columbia University in 1887 and of Ph.D. from the University of Munich in 1891. From 1891 to 1898 he was head of the department of physiology at the Yale Medical School, and from 1898 to 1909 has been Professor of Physiology at the University and Bellevue Hospital Medical College. He is a member of several important scientific societies, a contributor to scientific journals, and author of the "Elements of the Science of Nutrition," of which a second edition and the German translation are about to appear. Yale University granted him the honorary degree of A.M. in 1897 and the honorary degree of Sc.D. in 1908.

FRANK SHERMAN MEARA was appointed Professor of Therapeutics and Clinical Medicine in New York City. Born in Salem, Mass., in 1866, he graduated from Phillips Exeter Academy in 1886, received his A.B. from Yale University in 1890, his Ph.D. in 1892, and was graduated from the College of Physicians and Surgeons of Columbia University in 1895. Appointed to the staff of St. Luke's Hospital as interne in 1895, he has been connected with this hospital in various positions until the present time. He is a member of various scientific associations, and a contributor to magazines of general medicine and pediatrics. At various times he has been assistant, tutor, and instructor in the College of Physicians and Surgeons of Columbia University.

William Bradley Coley was appointed Professor of Clinical Surgery in the Medical College. He was born at Westport, Conn., in 1862; graduated B.A. from Yale University in 1884, and from the Harvard Medical School in 1888. Since this time he has been a practicing physician. He is a member of various medical societies and the author of books and magazine articles. He has also been clinical lecturer in surgery at the College of Physicians and Surgeons.

The number of members of the instructing staff is as follows:

	At Ithaca	In New York	Total
Emeritus Professors	9	1	10
Professors	79	9	88
Clinical Professors	—	21	21
Assistant Professors	74	6	80
Lecturers	1	4	5
Instructors	131	52	183
Assistants	149	42	191
	443	135	578

The University has striven during the year to improve the position of members of the teaching staff. It will be seen from the preceding paragraphs that a considerable number of assistant professors have been promoted to professorships. Two other changes of not less importance have been made. In the first place, increases have been made in the salaries of some professors, though the number unhappily was not large; and, secondly, a new grade of instructorship was established carrying with it a salary of $1200 which is $200 higher than the maximum hitherto paid. All these changes have been made in the last analysis with a view to securing and holding able men in the teaching profession.

The low salary paid to professors and instructors in American universities is a great reproach, and until its removal we are likely to see the successful competition of other professions and vocations for the best brains of the country. The matter cannot be more clearly or forcibly expressed today than it was by Bacon in his "Advancement of Learning," three hundred years ago:

> "And because founders of colleges do plant, and founders of lectures do water, it followeth well in order to speak of the defect which is in public lectures; namely, in the smallness and meanness of the salary or reward which in most places is assigned unto them; whether they be lectures of arts, or of professions. For it is necessary to the progression of sciences that readers be of the most able and sufficient men; as those which are ordained for generating and propagating of sciences, and not for transitory use. This cannot be, except their condition and endowment be such as may content the ablest man to appropriate his whole labour and continue his whole age in that function and attendance; and therefore must have a proportion answerable to that mediocrity or competency of advancement, which may be expected from a profession or the practice of a profession."

STUDENTS

The number of different persons who received instruction in the University in the year 1908–1909 was 4,859. The number in 1907–1908 was 4,465 and in 1906–1907, 4,225.

The distribution of these students among the different courses is shown by the following table, which gives the corresponding figures for the preceding years since the year 1904–1905:

Year	Graduate Department	Arts and Sciences	Law	Medicine		Veterinary Medicine	Agriculture		Architecture	Civil Engineering	Mechanical Engineering	Summer Session	Total excluding duplicates
				Ithaca	New York		Regular	Winter Courses					
1904–1905	211	684	228	90	316	110	189	199	68	385	1060	619	3841
1905–1906	232	705	222	59	335	88	230	248	81	425	1096	642	4122
1906–1907	239	748	211	63	285	86	278	244	82	466	1081	755	4225
1907–1908	249	820	206	63	257	82	348	270	100	511	1127	841	4465
1908–1909	310	902	225	33	188	94	415	364	133	569	1162	889	4859

The records of Cornell University always carefully distinguish between students in the regular courses leading to degrees, and attendants in the Summer Session and the Winter School in Agriculture who enter without examination. These latter are excluded from the following table, which takes account only of students regularly enrolled in courses leading to degrees during the academic year from September to June:

Year	Graduate Department	Arts and Sciences	Law	Medicine	Veterinary Medicine	Agriculture	Architecture	Civil Engineering	Mechanical and Electrical Engineering	Total exc. duplicates
1904–1905	211	684	228	406	110	189	68	385	1060	3318
1905–1906	232	705	222	394	88	230	81	425	1096	3461
1906–1907	239	748	211	348	86	278	82	466	1081	3523
1907–1908	249	820	206	320	82	348	100	511	1127	3734
1908–1909	310	902	225	221	94	415	133	569	1162	3985

This table shows that the attendance of regularly enrolled students in 1908–1909 was almost 4,000, or to be exact was 3,985. Of these 3,985 regularly enrolled students 3,584 were men and 401 women. The increase over the attendance of the preceding year was 251.

The figures also show that there is a gain in every College except Medicine. The largest increase has been in the College of Arts and Sciences, in which the enrollment is 902 as compared with 820 in 1907–1908, 748 in 1906–1907, and 705 in 1905–1906. This increase in attendance in the College of Arts and Sciences has taken place in spite of a slight decline in the number of women enrolling in that College. In 1907–1908 there were 313 women and 507 men, in 1908-1909 there were 309 women and 593 men.

The attendance of regularly enrolled students in Cornell University was affected in 1908–1909, and will be affected for some years to come, by the requirement of a baccalaureate degree for admission to the Medical College, which went into effect in September, 1908. Before this date students had been admitted to the Medical College fresh from the high schools, and the enrollment in 1907–1908 was 320 as against 221 in 1908–1909.

The enforcement of the requirement of a baccalaureate degree for admission in September, 1908, has affected, of course, only the entering class, but it has reduced the total attendance for the year 1908–1909 to 221. It will be three years more before all the large classes have graduated. By that time the total attendance in the Medical College may not improbably be as small as 50, but this shrinkage was not only foreseen but actually assumed by the authorities of the University when they decided to require the baccalaureate degree for admission to the College. It was felt that there was room in the great City of New York for at least one medical college devoted exclusively to the professional training of college graduates and to the work of scientific investigation. The reduction in the number of students in the Medical College, which for many years will not again be as large as it has been, will enable the members of that Faculty to devote themselves more assiduously than ever to scientific research.

Of the total of 3,985 regularly enrolled students a little more than half (2,099) came from the State of New York. From Pennsylvania came 360; New Jersey, 201; Ohio, 168; Illinois, 136; Massachusetts, 109; while 750 came from forty-five other states and territories of the United States (including Porto Rico, Hawaii, the Philippine Islands, and Yukon Territory) and 157 from thirty-two different foreign countries, (including China, 33; Cuba, 19; Argentine Republic, 12; Canada, 10; Mexico, 10; Japan, 10; India, 6; Brazil, 5; Ecuador, 5; Paraguay, 5; Peru, 5; Australia, 5, etc.)

A NEW RESIDENTIAL HALL

In the Report for 1906–1907 there is the following paragraph:

> "The experience of American students seems to show that the fraternity house, accommodating two or three dozen students, presents, in the matter of size and arrangement, an ideal for the residential hall: it is large enough for a community and not too large for intimate acquaintance and friendship; it provides studies, bedrooms, bath rooms, kitchen, dining room, and common rooms (the size and number of which might perhaps be reduced in houses owned by the University). Thirty of these houses would accommodate about 1,000 young men. The cost of building them would undoubtedly be greater than the cost of ten larger halls each accommodating one hundred students, with a separate dining hall, like the dormitories and halls of Harvard and Yale. But in this age of mechanism and bigness, it is especially desirable that the universities should possess the most favorable conditions for the development of manhood—for the moulding of man moral and social as well as of man intellectual. And such communities of 25 or 35 young men would, the President has come to believe, be more fruitful seed-plots of personality than the conventional dormitory with one or two hundred chambers, but no dining hall or common room. Either, however, would be a great improvement on the present condition at Cornell. But for either the University must await gifts from the friends of higher education."

An interesting experiment along these lines has just been established at Cornell. It appears that a number of students have been sent to the University by the Telluride Institute, a corporation which owns and operates a number of power plants in Colorado and Utah. The head of that business, Mr. L. L. Nunn, visited the University in June and explained to the President that he desired to erect on or near the campus a building to be used as a home by these young men. Mr. Nunn is greatly interested in scientific research, of which a beginning may be made in connection with the new residential hall. Meanwhile a group of University students, undergraduate or graduate, selected by him will have the advantage of living together in this new and beautiful home. This makes better provision for the life of the young men than could be offered by the University, which on the other hand has no responsibility for the enterprise. It appeals, however, very deeply to the sympathy and interest of the President, Trustees, and the friends of the University. Mr. Nunn's generosity may prove an inspiration to other wealthy men and the house he is building on the campus may possibly serve as a model for the type of smaller student halls at Cornell. It will certainly furnish an opportunity of testing the advantages which have been claimed for the type of small residential halls, particularly when occupied by older students, graduates or upperclassmen.

The building, located on West Avenue next to the Delta Upsilon lodge, will accommodate about forty students. It is of fire-clay brick, four stories in height, with a frontage of 106 feet and a depth of 48 feet. It is of fire-proof construction throughout all partitions, on a steel frame. The two upper floors are divided into suites of two rooms and a bath. The rooms are all large, none being less than 12 by 18 feet. The second or main floor contains the library, hall, and general living rooms. The ground floor is provided with a dining room, breakfast room, billiard hall, kitchen and culinary rooms, including an engine room and laboratory. It is well equipped with a forced ventilating system of sufficient capacity to change the air throughout the entire building every ten minutes. This system is so installed that the air may be heated or cooled to any desired temperature. An ammonia refrigerating system will be installed, which together with a vacuum cleaning system, an isolated power plant, and the ventilating system, will make an ideal equipment.

COLLEGES AND SCHOOLS

(1) *The Graduate School.* In connection with the graduate work of the University the great event of the year was the establishment of a separate Graduate School. The University Faculty acting on reports of its committees made recommendations to the Board of Trustees which resulted in the enactment of the new statute, which will be found printed in the report of the Dean of the University Faculty (p. xviii). The essence of it is that there shall be a special faculty in charge of graduate work in the University, and that this faculty shall consist of those professors and assistant professors who are actively engaged in supervising the work of graduate students as members of the special committees in charge of major and minor subjects.

The organization of the Graduate School with a special faculty marks an epoch in the history of graduate work at Cornell. There are many problems calling for consideration at the hands of the new faculty. The importance of research and the need of differentiation among professors and students who engage in it, and the obligations of the University and the public in relation to it, were discussed by the President in the Report for 1907–1908 (pp. 30–32).

He desires to reiterate the convictions there expressed and to add that they have been deepened by the observations and inquiries he made in European universities during the summer vacation. He believes that even the foremost American universities cannot attain the level already reached by European universities until each of them is provided with a goodly number of professorships devoted to research in connection with which teaching shall be a subsidiary and ancillary function. Surely it ought to be possible to accomplish in the great State of New York as much in this respect as has been done by one of the duchies or kingdoms of the German Empire or by one of the cantons of the Republic of Switzerland.

The attendance of students in the Graduate School shows an encouraging increase. Three hundred and ten graduate students were enrolled in 1908–1909 as compared with 249 in 1907–1908. It should, however, be added that the problem before the universities is not one of numbers or of quantity but of quality and excellence. The records of graduation afford grounds for believing that there was last year an improvement at Cornell. As many as 34 persons received the degree of Ph.D. whereas the largest number in any preceding year was 23.

(2) *The College of Arts and Sciences.* The attendance in this College during the year 1908–1909 was 902 which is 71 more than the highest previous enrollment. Of these undergraduates 593 were men and 309 women. This enrollment of 902 last year was almost exactly 200 greater than it was three years ago. The figures are as follows: in 1905–1906, 705; in 1906–1907, 748; in 1907–1908, 820.

While the attendance in the College of Arts is larger than ever before, the reputation of the College for faithful work has also been noticeably enhanced. Of course the great majority of students in the College of Arts and Sciences, as in the other Colleges of Cornell University, have always been hard workers. But there has been an impression that if a student desired to graduate without much work it was possible for him to accomplish that result in the College of Arts and Sciences. The College, however, no longer has this reputation and the students themselves recognize the change. The improvement is probably due to the closer supervision which the Dean and Committees of the Faculty now exercise over the work of undergraduates and especially of underclassmen and the increasing help given by individual members of the Faculty to students in enabling them to select their courses wisely and encouraging and stimulating them to perform their work regularly. All this makes demands, and heavy demands, upon the members of the committees, and especially upon the Dean. But it is work well worth doing in the interest of students. No one can read the Dean's report (Appendix III) without being profoundly impressed by the great amount of time and energy which has been expended by him and his committee associates in devising means for improving the efficiency of the College of Arts and Sciences and enabling—one might also say *requiring*—students to secure the maximum of benefit from their undergraduate course. It is also satisfactory to note from the Dean's report that exhaustive investigations conducted by him have shown that some criticisms which have been made on the College of Arts and Sciences have had far less basis than even the University community itself supposed, and that whatever grounds there may have been for these criticisms have now been practically removed.

The College of Arts and Sciences is destined to increasingly important functions in Cornell University. Not only has it always supplied a large portion of the work of the first two years of all other courses in the University (with the exception of Law) but an enrollment of one or two years or more in the College of Arts and Sciences will hereafter be required for admission to some of these other Colleges. This is already the case in the College of Medicine, which prescribes an Arts or Science degree as a condition of admission. And after 1910 the College of Law will require at least one year of Arts work as a condition of admission, with the announcement that its ultimate goal is two years of such college work. The President believes that a similar arrangement will in the not distant future be obligatory for students of Engineering. Meanwhile, however, the University has not gone further than to offer as an alternative to the existing four-year courses in Engineering a course of two years in the College of Arts and Sciences, followed by three years in Engineering. As Dean Hull has fully explained in his report (pages xxxvi-xxxviii) this legislation was consummated last year. Among many obvious advantages in this arrangement there is one of great importance to the student himself. It enables him to postpone for two years the necessity of determining his future vocation. If at the end of this time he decides that he does not desire to become an engineer he could continue in the College of Arts and Sciences as a junior, for he is required to complete all the hours and courses prescribed for other Arts students in the first two years of the course.

(3) *The College of Law.* The requirement of at least a year of college work for admission to the course in Law has just been described. The report of Dean Irvine (Appendix IV) gives figures showing that in scholastic preparation students in law are already tolerably well prepared for the new requirement. Nearly two-thirds of the students enrolled in the first year entered with this amount of preliminary collegiate training. The advantage of such collegiate training was strikingly demonstrated in the January examinations in 1909 when the subject was care-

fully investigated. It was found that of the members of the first-year class in the Law course those who had had one or more years of college work obtained an average grade seven and a half per cent. higher than that of their comrades whose preliminary education consisted only of a high school course. It is also a most encouraging circumstance that while more students are taking the course in Law who have had some collegiate training, the total number of those taking it is also undergoing an increase. The registration in the College in 1907–1908 was 206. In 1908–1909 it was 225. Of these latter students 74 came from outside the State of New York as against 63 in 1906–1907.

Mr. F. D. Colson, after eight years of good and faithful service on the instructing staff of the College, resigned his position to become law librarian of the State Library at Albany. He withdrew near the beginning of the year and Mr. Charles Tracey Stagg was appointed to fill the vacancy, first as instructor and subsequently as Assistant Professor of Law.

It is pleasant to report gifts from old students. During the year, Earl J. Bennett, who graduated LL.B. in 1901, gave to the University for the benefit of the College of Law securities to the amount of $2,000. On the recommendation of the Faculty the fund has been devoted to the completion of the collection of session laws of which a beginning has already been made, and this collection is to be called the Earl J. Bennett Collection of Statute Law. The librarian finds himself constantly hampered by the need of funds in maintaining and expanding the excellent library which the College of Law now possesses. There is no other purpose to which an endowment of (say) $100,000 could be so wisely and fruitfully devoted in the interests of the College of Law.

(4) *The Medical College.* In the Cornell University Medical College in New York City the requirement of a college degree in Arts or Sciences for admission resulted, as was anticipated, in a great falling off in the number of entering students. The three upper classes were, of course, unaffected. When all students enrolled shall have satisfied the new requirements for admission the total attendance will be greatly reduced, but the Faculty contemplated this shrinkage in adopting the new entrance requirements and it does not seem probable that the diminution will be greater than the figures assumed by the Faculty in advance.

It has, of course, become necessary to adjust the curriculum to college graduates. It has in the past been a curriculum for high school graduates. Less classroom drill will in the future be required. On the other hand, far more provision must be made for laboratory work and the possibilities of independent investigation. Some of the departments of the Medical College, notably the department of pathology, had already been organized on this basis. The organization of others on the same lines is the business in which the College is now engaged.

For the department of physiology its reorganization was accomplished at the close of the year 1908–1909 by the appointment of Dr. Graham Lusk as head of the department and of a staff of assistants, with the provision of new laboratories for the department that have involved changes in the building costing over $20,000. The name of Dr. Graham Lusk is itself a guarantee of the high character of work to which the department is committed. That work includes provision for investigation into the problems of physiological science as well as into the bearings of this science in all its phases on the problems of clinical medicine and surgery.

A similar reorganization has occurred in the department of anatomy, So long as the aim of the Faculty was to prepare its graduates to enter at once upon the practice of medicine, the course offered in this subject did not attempt to go beyond the needs of the ordinary practitioner. The course offered was an excellent course within the limitations prescribed, but a medical school which admits only college graduates and which lays stress on investigation must present the subject of anatomy as a fully developed science and without regard to mere utility in medical practice. Accordingly the department has now been broadened so as to embrace embryology, comparative morphology, and histology, with experts in these several fields. It is true that these subjects had formerly been taught in connection with the department of pathology. Their natural place, however, is with the department of anatomy, and their association with this subject makes it possible to give to the entire group a much fuller development. On the other hand, while provision is thus made for the study of anatomical science as such, the practical application of this knowledge is provided for by the division of applied anatomy, a medical and surgical subject which is obligatory on all students.

There has also been a corresponding differentiation and integration in the departments of pharmacology and therapeutics. Professor Hatcher has in his laboratory taught the students the properties of all pharmacological substances. It is now provided that Professor Coleman, as Professor of Clinical Medicine and Applied Pharmacology, shall at the bedside give clinical demonstrations of the therapeutic properties and uses of these same substances, and not only of these but of all other therapeutic agents which may lie outside the domain of pharmacology (the field of surgery excepted). This division and correlation of work will give the student an opportunity of acquiring a thorough knowledge, both theoretical and practical, of every remedy which is used as a means of combating disease.

A somewhat similar correlation has been established between the departments of therapeutics and medicine. The province of therapeutics is the treatment of the several diseases. The remedies, whose properties and application the student has studied in the department of pharmacology are now gathered for a definite purpose about practical problems. The instruction consists of a series of didactic presentations in which the entire treatment of any one disease, including complications and sequels, is spread as a whole before the student. This entire field of treatment is the province of the department of therapeutics. The Professor of Medicine, on the other hand, is left free to develop his subject along the line of etiology, pathology, diagnosis, and prognosis. The two departments are, however, closely associated. Dr. W. Gilman Thompson has from the beginning held the chair of Medicine. The vacant chair of Therapeutics has been filled by the appointment of Professor Meara (see page 14).

There has also been created a department of experimental therapeutics. The new department will be devoted to sero-therapeutics. It will also work in conjunction with the departments of pathology, pharmacology, and therapeutics. The new department has been put in charge of Assistant Professor Beebe, who had already distinguished himself as an investigator in this field.

So much for the reorganization of the departments with a view to adapting the curriculum to the needs of college graduates, who alone are now admitted. But the year 1908–1909 was also marked by unusual scientific activity and productivity on the part of the Faculty. The investigations in which the professors and instructors have been engaged are given in detail in the admirable report of Dean Polk, (pages lxiii to lxviii) and need not be repeated here. While the exhibit makes a most encouraging showing of the scientific work done by the members of the Faculty of Medicine, it also impressively indicates the variety and magnitude of the problems still to be solved in the field of the prevention and cure of human disease.

In the Ithaca Division of the Medical College besides the enforcement of the higher entrance requirements and the rearrangement of the curriculum, the most notable events of the year were the transferring of Professor Benjamin F. Kingsbury from the chair of Physiology to the chair of Histology and Embryology, the entering upon their duties of Dr. Sutherland Simpson as Professor of Physiology, and of Dr. Andrew Hunter as Assistant Professor of Biochemistry, and the reconstruction of the new laboratories in the Medical College. The year's experience with college graduates as students of medicine demonstrates the necessity of teaching them in classes by themselves, apart from all other students (even when other students in pure or applied science may be taking the same subjects). While these college graduates who are studying medicine do not require so much direct supervision and classroom drill as other students, some of the professors report that they require more guidance of a certain kind and make greater demands on the time of the professor than any other class.

(5) *The New York State Veterinary College.* The Faculty of the College consists of eleven men exclusive of demonstrators and those engaged in teaching animal husbandry, chemistry, histology, and embryology, which are provided for in other Colleges of the University. The total enrollment of students was 94 being an increase of 12 over the enrollment of 1907–1908.

The clinical instruction has been reorganized. The new operating room has greatly improved the facilities for the teaching of operative surgery, and the new ambulatory clinic enabled the senior students to see 190 medical and obstetrical cases which could not otherwise have been observed. In the clinic for small animals over 200 cases were treated during the year. In the consulting clinic 350 cases were presented and treated. The results attained demonstrate the sufficiency of clinic material for the satisfactory teaching of clinical medicine, surgery, and obstetrics; the greatest hindrance to effective teaching is the lack of suitable buildings for examinations, clinics, and hospital for medical cases.

Director Moore gives the following brief abstract of researches and diagnoses made during the year:

> "The investigations by Dr. Fish into the action of drugs upon the circulation and respiration of the horse have been continued. Research has been started in the same department on serum therapy in canine distemper. Considerable work has been done on the condition of the blood in cases of skin diseases of dogs and cats. Dr. Williams has identified the granular venereal disease of cattle, known in Germany, in this State and is making extended investigations into its relations to abortion and sterility in dairy cattle. In the department of pathology there has been considerable research on the etiology and diagnosis of rabies, the elimination of tubercle bacilli from infected cows, and an undescribed disease in cattle due to one of the higher bacteria. The excessive demand on our time for diagnoses has materially hindered research work during the past year.
>
> "We have made a large number of diagnoses of animal diseases for the veterinarians of the State and the Commissioner of Agriculture. There have been 404 examinations for rabies and over a hundred for glanders. We have prepared and distributed 25,740 doses of tuberculin, 3,000 doses of anthrax vaccine, and 1,026 doses of mallein."

The legislative committees which visited the University were greatly impressed by the work of the State Veterinary College. Director Moore in his statement to the committees formulated the needs of the College as follows: (1) An increase of $5,000 for annual maintenance; (2) $10,000 for the study of animal diseases, on a farm provided by the

University; (3) $20,000 for the enlargement of the north wing of the main building; and (4) $130,000 for much needed clinical buildings. Of the four items, the first three were granted, and though the appropriation was not made for the fourth, the need of the clinical buildings was fully recognized and the legislature may be expected to provide them in the near future. These hospital facilities are absolutely essential to make the work of the College effective in training future veterinarians to serve the live stock owners of the State. Farm animals are one of the greatest assets of the State, and the skilled veterinarian is to the health of these animals what physicians and health officers are to the health of the people of a community.

(6) *The New York State College of Agriculture.* By its instruction of students, by its scientific investigations, by its extension work among the farmers of the State, the New York State College of Agriculture furnishes a superb vindication of its existence. It has cost the State some money, but the results it has achieved are worth tenfold or a hundredfold all that it has cost, and its success has been so rapid and so extensive that enlargement on a vast scale has become an absolute necessity. In the words of Director Bailey, "We are now face to face with the problem either of developing space and equipment in the College of Agriculture or limiting the number of students who shall be received." The following table shows the enrollment of students for the last three years; and all indications point to a much larger attendance in 1909–1910 than there has hitherto been:

1906–1907		1907–1908		1908–1909	
Regulars	145	Regulars	206	Regulars	273
Specials	133	Specials	142	Specials	145
Graduates	39	Graduates	37	Graduates	58
Winter-Course	244	Winter-Course	270	Winter-Course	364

The success of the College has been due to the State's appreciation of the importance of agricultural education and the provision it has made for furnishing it, but the active agents in achieving such success have been the Director and the Faculty of the College, who have brought to the work a fund of energy, enthusiasm, mental ability, scientific attainment, pedagogical skill and devotion not surpassed in any other agricultural school in the country. Director Bailey is undoubtedly the foremost professor and director of agricultural work in America—at once an eminent scientist, a stimulating teacher, a brilliant popularizer, and an enthusiastic and inspiring leader. He is enjoying well earned rest in the year 1909–1910, for which the Trustees have voted him a sabbatic leave. Professor Webber has been appointed Acting Director for the year.

After going over carefully with the Director and the Acting Director the present condition of the College the President fully concurs in the proposition that either the College must be greatly enlarged or the number of students must be immediately limited. He does not believe that either the people or the legislature of the State will think it good policy to restrict or stop agricultural education at its very beginning. And in the present case there would be the worst of all reasons for stopping or restricting it, namely, the reason that it had been extraordinarily successful. The President, therefore, assumes that the people of the State will provide the necessary enlargement of the College of Agriculture. This will include more buildings and more professors and instructors. So far as buildings are concerned the new extension will call for more than a duplication of the existing establishment. There must be a new building for the poultry department; a new building for plant technology, including plant pathology, plant physiology, plant breeding and improvement, botany, etc.; a new building for animal husbandry; a new building with laboratories, classrooms, and auditorium for winter-course students and extension work; a new building for domestic science and home economics; a new building for chemistry; a new building for a central heating and power plant; and new buildings to complete the greenhouse laboratories already started. From rough preliminary estimates it is clear that this additional plant will cost from $750,000 to $1,000,000. And the regular appropriation for maintenance will need to be increased from $175,000 to about $250,000 a year.

Details regarding the crowded condition of the various departments will be found in Director Bailey's report, which is printed herewith as Appendix VII. And fuller details will at a later date undoubtedly be presented by the Trustees of the University to the people and legislature of the State. Meantime the President is glad to quote the testimony of the State Commissioner of Education, the Honorable A. S. Draper, not only regarding the work of the State College at Cornell, but also the costliness of all higher agricultural education and the wisdom of making large and generous appropriations to maintain it. The following extracts are from Commissioner Draper's address on "Agriculture and Its Educational Needs," delivered at Syracuse on December 29th, 1908, from which quotations have already been made at the beginning of this Report on the subject of larger state control of Cornell University:

> "The State has recently built new agricultural college buildings, and provided for developing a real agricultural college, at Cornell University.
>
> "In all phases of higher education what is good is not cheap, and what is cheap is not good. It is no less true—doubtless it is more true—in the higher study of agriculture than in any other phase of advanced education. And the higher learning is quite as vital to agriculture as to any other interest of the people. Then, a real agricultural college, associated with a true university, is the true policy in this State, and such a college may be expected to vitalize whatever is done in connection with agriculture in the high schools,

and whatever has a bearing upon agriculture in the elementary schools; and it may also be expected to incite and uplift profitable agricultural operations among the people. Then, whether or not an erroneous initiative has been given to provision for agricultural instruction of elementary and secondary grades in this State, we have made no mistake concerning agricultural teaching of the college grade.

"The erection of buildings for a college of agriculture at Cornell University is not enough to insure much result to New York agriculture. The gathering of a faculty, the laying down of offerings, and the installation of an equipment, are not enough. That college will not only have to be as educationally respectable as any other college in the university, but it will have to stand in vital and living relation with every other. No matter how elaborately equipped it may be, it will accomplish relatively little unless it has the fellowship and the stimulus of the union of colleges and graduate school which we call the university. It will not bear large fruits unless it has to respond to the demands of a real constituency with large interests, nor until the purposes of representatives of that constituency, who have the intelligence and the authority to undertake to accomplish particular things, have to be met.

"All of the natural sciences, physics, chemistry, zoology, physiology, bacteriology, embryology, thremmatology; the social and political sciences, history, economics, the mechanical arts, and divers phases of engineering; great practical experience, and a large amount of horse sense, are inseparably involved in that high agricultural development which must be had in the State of New York if her agriculture is to keep pace with the other commercial and intellectual activities of the State. Of course, all the people engaged in farming can not be equipped with all of this knowledge, but a considerable part of them must be, to the end that they may lead the way; and when such men lead the way all the rest will be copying larger men and better methods than they have sufficient opportunity to copy now. And there must be a place which will not only initiate new undertakings and lift old ones to higher planes, but to which any occult difficulty may be taken for investigation and report. And investigation and teaching, scientific research and the training of teachers and superintendents, must go together because one is as vital as the other, and each inspires and energizes the other. And with it all there must be, in the agricultural college at least, the ever present feeling that agriculture is our most important business, and that the college which can quicken it has a larger mission and is entitled to a fuller reward than any other kind of a college which the ingenuity of man and the generosity of a people have ever been able to put upon its feet. These specifications call for nothing short of a real university under some considerable measure of popular control.

"It will be good State policy to give liberal support to the State College of Agriculture and expect to make large demands upon it. An Agricultural college is bound to be a college as much as any other kind of institution which claims the name of college. Strong teachers and many offerings will have to precede the coming of students.

No state will be likely to support more than one that will make much of an impression upon its agriculture. . . . But a real college properly sustained by the schools below, will gather students who can matriculate and thus make an impression upon the State which will endure. The State Agricultural College must be sensitive to rational and responsible agricultural initiative. It must not only train men to manage farms, but it must train teachers for agricultural work in the schools below. It must be scholarly, but it must be as democratic as it is scholarly. There are people who think that impossible. Therein lies the difference between the old academic scholarship and the newer industrial scholarship. Other states have found that difference and reckoned with it more than once. We can beat them all if we will. The State Agricultural College must not only be sensitive to the initiative of others; it must have an initiative of its own. It must find out the things which New York agriculture needs to have done and go right ahead doing them, knowing that if they work it will get the glory, and if they fail it will be damned for it. Teaching and research must go together. They always help one another.

"We should enter upon a great system of agricultural extension. The schools, from highest to lowest, should act in accord, not only in training students and in scientific research, but in carrying knowledge to the very doors of the farmers. Evangelistic work in agriculture should go everywhere. Seed specials should be run over the railroads. The blood of the best farm animals should be distributed throughout the State. Object lessons of special interest to both men and women should be carried in all directions. The applications should be especially adapted to every section, and the fullest attention should be given to the less favored rather than to the more favored counties of the State."

All the varieties of work described by Commissioner Draper in his ideal college are now performed by the College of Agriculture. The additional appropriations are needed to enable it to perform its functions on a larger scale and more effectively. In the near future the College of Agriculture will have 1,500 or 2,000 students at Ithaca and it must give them good instruction. In the near future the College of Agriculture must cover the State with extension work, and for this purpose it must have a separate staff of teachers. In the near future the College of Agriculture must maintain in addition to its three months' winter school for farmers' sons and daughters a two months' summer school for teachers who may desire to qualify themselves to give instruction in the elements of agriculture in the schools of the State. To prepare teachers of agriculture, to bring science to the help of farmers throughout the State, and by original research to enlarge agricultural knowledge, are the functions to which the New York State College of Agriculture and the Federal Experiment Station at Cornell University are dedicated.

(7) *The College of Architecture.* Relatively the increase in enrollment in the College of Architecture for the year 1908–1909 is greater than that in any other College of the University. In 1907–1908, the attendance in this College for the first time touched 100, double that of 1901–1902, but the past year saw a further increase of 33%, the enrollment reaching 133. The problem of accommodating this larger number of students is now acute. The drafting rooms in White Hall are made use of to their full capacity, and next year, the Director believes, it will be impossible to accommodate the students in landscape design from the College of Agriculture, even though their going will, because of the close relations between these branches of the work and the mutual interchange of ideas resulting therefrom, be a distinct loss both to them and to the students in architecture. The Director furthermore sees no hope of being able to house the College of Architecture under normal development in the present quarters in White and Franklin Halls for more than another year. Enlarged quarters will then be imperative unless the number of students is to be limited.

An important step toward improvement of instruction made during the year was the establishment of an Assistant Professorship in the Theory of Construction, a step that at once solves a troublesome problem in the College of Civil Engineering and makes possible "a better correlation of the work in architecture."

The Director very properly emphasizes in his Report (Appendix IX) the tremendous art awakening throughout the country, and points out that the fine arts must soon receive prominent recognition in curricula of all colleges and universities of liberal culture. "Cornell should lead rather than follow." In this connection the President is glad to make special mention of the Frances Sampson Fine Arts Prize and the new courses in the philosophy of art given by the Sage Professor of Philosophy.

(8) *The College of Civil Engineering.* The marked increase in the attendance noted in the Report last year has continued, the total enrollment for the present year being 569. This increase in enrollment renders the problem of laboratory and classroom accommodation more serious than ever before, and the Director urges strongly the immediate enlargement of Lincoln Hall.

The reorganization of the departments of the College under six divisions as described in last year's Report has proved highly advantageous. Professor Crandall has been left free to concentrate his energies on his own specialty of railway engineering, along with specifications and contracts, greatly to the advantage of the students in Civil Engineering. Assistant Professor Leland took charge of the work in geodesy and astronomy, which formerly fell to Professor Crandall, while Professor Molitor, the new appointee, had charge of the department of topography and geodetic engineering. The amount of prescribed instruction given in these fields is thus described by the Director:

> "The first semester the entire freshman class, numbering 174, were given their elementary surveying, a course of three hours per week. The entire senior class, numbering 130, had geodesy and astronomy, a course of five hours per week. The second semester the entire sophomore class, numbering 124, were given a three-hour course in higher surveying. The entire senior class, numbering 128 students, were given a two-hour course in cartography and in addition 114 Sibley students were given a special two-hour course in sur-

veying for mechanical engineers, making a total of 670 students in this department within the year."

The high standing of the department of applied mechanics and hydraulics under Professor Church is universally recognized. The forces of the department were materially strengthened during the year by the appointment of Assistant Professors Rettger, Walker, Turner, and George.

The work in sanitary engineering takes on every year increasing significance. The public are becoming alive to the importance of protecting the public health, and the indispensable agents in this work are the sanitary engineer and the sanitary chemist. The courses in sanitary science now given in the University under the joint auspices of the State Department of Health and the University have quickened interest in this subject and emphasized the importance of strengthening and developing the department of sanitary engineering. Should the State School of Sanitary Science be established at the University, as the State Commissioner of Health has urged, the courses in sanitary engineering now offered in the College of Civil Engineering would be a fundamental portion of the curriculum.

(9) *The Sibley College of Mechanical Engineering and Mechanic Arts.* Sibley College has completed its fifth year under the directorship of Professor Albert W. Smith. The quinquennium has been a period of steady growth and of constant improvement, both in the amount and quality of the instruction and in the multiplication and modernization of mechanical facilities. Students and faculty have been brought closely together by means of the system of class advisers, with the result that there is now closer personal supervision of the students' work on the part of the faculty and more regular and systematic work on the part of the students. All departments of Sibley College have shared in this advance and none more than electrical engineering,

which conducts the electrical laboratory formerly in charge of the department of physics. The admirable correlation of the work in drawing and other subjects effected by the department of machine design has been described in previous Reports.

With the enlargement and improvement of the various departments fundamental to courses of Mechanical Engineering there has been a discontinuance of the departments of naval architecture, marine engineering, and railway mechanical engineering. It was the judgment of the Director and Faculty that students in this course could more profitably spend their time on fundamental subjects underlying all engineering; and that, if there was any time for specialization, it should be devoted, not to narrow specialties like the ones discontinued, but to the broader subjects of electrical engineering, steam engineering, or internal combustion engineering. In any event the fundamental subjects occupy seven-eighths of the student's time, so that only one-eighth of his time is left for specialization in any field. It is true that naval architecture, marine engineering, and railway mechanical engineering might have been retained as graduate subjects; but the Faculty do not favor graduate work until students have had some considerable experience in the industrial world, and it is practically certain that few, if any, of these would return for graduate work in naval architecture and marine engineering, which for the rest could be given more effectively in a seaboard town, especially if there were cooperation on the part of a large ship-building company. The need of additional accommodation is impressively described by the Director:

> "I wish to call your attention to one very serious, pressing need in Sibley College. Every resource has been exhausted in the effort to render the building accommodations adequate for the increasing classes in shops and laboratories. Basement rooms, heretofore considered only fit for storage, have been utilized. The electrical labora

tory, instead of being, as it should be, in adjacent rooms of one building, is located in four widely separated places. The mechanical laboratory long ago outgrew the building assigned to it and its work is carried on under great and increasing difficulties. The machine shop, by reason of careful rearrangement, will serve for the junior classes of the next two years but not for succeeding classes at the present rate of increase. The foundry needs a fifty per cent. increase in floor space.

"Because of these conditions it will be necessary soon to provide increased building accommodations or to limit the number of students in Sibley College."

(10) *The Summer Session.* In the Summer Session of 1909 there were enrolled 889 students, an increase which compares favorably with the enrollment of 841 in 1908, 755 in 1907, and 642 in 1906. The Faculty numbered 79, of whom 62 are regular members of Cornell Faculties, 17 coming from other institutions. Forty-two teachers were of professorial rank.

The Summer Session was intended originally for teachers, but as pointed out in the Report for last year (pp. 52, 3), the curriculum now embraces subjects far beyond the limits of the high school curriculum, and has lead to a laudable desire on the part of undergraduates to avail themselves of the advantages offered by summer work in Ithaca. These two great classes—teachers and Cornell undergraduates—compose the bulk of the summer attendance. Of the 889 students this past summer, 331, or not quite two-fifths, were teachers, and 375, or a little over two-fifths, were regular students in the University. Of the 331 teachers enrolled, as compared with 294 in 1908, 40 were engaged in teaching in colleges, 15 in normal schools, 129 in high schools, 131 in grammar or elementary schools, 11 in private schools, while 21 were superintendents or supervisors. The attendance of college teachers it will be seen has increased steadily. The number of high school teachers shows a slight falling off this year—for what reason is not apparent—although it is still larger than in any other year except 1908. On the other hand, the falling off in the number of elementary school teachers noted last year (Report, 1907–1908, pp. 52, lxxx), has been more than made good, and the number of those engaged in the work of superintendence or supervision shows a gratifying increase.

Changes and enlargements in the courses offered by the various departments are mentioned in the report of the Director (pp. cviii–cxi). The earnest, devoted spirit of the Faculty, the department conferences, the excursions and field work, the general lectures, musical recitals, Saturday evening dances in Sibley, and the Sunday evening religious services on the Library slope, all combine, under the able administration of the Director, to make the work of the Summer Session enjoyable, profitable, and elevating. Director Bristol has good ground for his belief that "the session of 1909 marks a steady advance in one of the useful educational activities of the University."

(11) *The Military Department.* The condition and needs of the military department were fully described in last year's Report. Captain Phillips, the new Commandant, has ably and successfully maintained the reputation of the department.

The Act establishing Cornell University (Laws of New York, 1865, Chapter 585) provides that "the leading object of the corporation hereby created shall be to teach such branches of learning as are related to agriculture and the mechanic arts, including military tactics; in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." This part of the law of the State is taken literally from the Act of Congress donating public lands to the several states for the so-called Land Grant Colleges. The State of New York accepted the gift subject to the conditions laid down by Congress. Among these conditions is provision for military tactics. The War Department lays down two years of prescribed drill as essential to the fulfillment of this condition. For the last few years Cornell University has not required drill from both freshmen and sophomores, as it formerly did, because the Armory was no longer large enough to contain even the freshman classes. The War Department calls attention to this deficiency. The following extracts are from the report made by Captain Julius A. Penn, of the General Staff, to the War Department, a copy of which has been forwarded to the University:

> "Two facts stand out prominently:
>
> 1. The College does not comply with the requirements of G. O. 155, W. D., as to the time allowed the Military Department, though this minimum was fixed by the presidents of the government-aided institutions. Three hours a week for one year is but half of the minimum requirement. The 75 electives while speaking well for the military department does not bring the total to the minimum of three hours a week for two years.
>
> 2. The percentage of students receiving military instruction compared with the total number of male students at the University, is lamentably small. Almost one-half of the freshman class is excused for one cause or another. If we allow that the same number of freshmen have been instructed in past years, then scarcely more than fifty per cent. of the graduates have had the benefit of even the one year training"

Captain Penn speaks in high praise of the work done by the military department in the University in spite of the conditions by which it is hampered. He recognizes, however, the gravity of the situation and suggests that the State provide an Armory to enable the University to train properly its students in military tactics, so that in time of war they might be qualified to become officers for volunteer troops, which would be called to supplement the National Guard of the State. It may be added that the State, having accepted from the United States the grant of Federal lands for the college of agriculture and mechanic arts under the proviso that instruction in military tactics should always be maintained therein, would seem to be under a special obligation to provide the necessary Armory for the fulfillment of this obligation. This is naturally not a phase of the question which could be discussed by Captain Penn, whose report to the War Department concludes as follows:

> "The tone and traditions of the University are of the highest order. The results of the brief training given are most gratifying considering the lack of the ordinary facilities for proper instruction. The original limitation of instruction to the Freshman Class was due to the absence of proper armory facilities to accommodate two classes. The present armory is inadequate in size to accommodate even the freshman class if it were not for the large excused list. This institution has been fortunate in having had a number of very able and efficient detailed officers. It is only by a continuance for a considerable number of years of correct methods that the present firm foundation for military efficiency in the cadet regiment has been laid and maintained.
>
> "The main object of the military instruction given at the schools and colleges is to qualify the students to be company officers of Infantry Volunteer and Militia. A war with a first class power would necessitate a call for at least 300,000 Volunteers in addition to the Regular Army and Organized Militia. It would appear that no higher duty could rest on the state than to see that it had among the younger men of the state enough trained men to properly officer such a force as it might be called upon to furnish. With properly trained officers, the citizen volunteer is not called upon to swell the death roll of camps and has in front of him only the soldier's chance in actual battle. No better recruiting ground for the officers of the Organized Militia can be found than among the graduates of the Universities which have the facilities for and devote the proper time, even the minimum of three hours a week for two years, to the military instruction. I am assured that with proper facilities this institution will require two years of military work. Cornell University is a quasi-state institution and becoming more closely allied with the state. It is not too much to expect that a state which has provided in such a handsome manner for its citizen soldiers by building many fine armories costing in the aggregate many millions of dollars will, when the matter is brought to the attention of its legislature, make such provision for an adequate armory here, as will put new life in the military instruction, and will enable the college to carry out in more befitting manner its patriotic endeavor to qualify its students to be the best of the company officers needed for the future volunteer troops of this great state.
>
> "Even though the minimum requirements of G. O. 155, W. D., 1907, are not complied with at this institution, I consider the instruction given to be of value, and recommend a continuance of the detail of an Army officer as Military Instructor here, in the hope that within a few years they may secure adequate facilities and revert again to a two-years course of military instruction."

THE LIBRARY.

The University Library now numbers nearly 370,000 (369,051) volumes and 55,000 pamphlets. Of this number nearly 320,000 (318,301) and all the pamphlets are in the general library, 40,000 (39,838) in the law library, the remaining 11,000 (10,912) being divided among the Flower veterinary library, Barnes reference library, forestry library, Goldwin Smith Hall library, Stimson Hall medical library, and the Agricultural College library. Aside from these special libraries volumes from the general library are from time to time deposited in the various laboratory and department collections in other university buildings, the total number so in use at the time of the Librarian's report being 17,335.

Accessions to the library during the year numbered over 15,000 (15,413) volumes and 2,000 pamphlets. The most important purchase was the collection of works on economic entomology, numbering 787 volumes, made by the late Professor Slingerland and purchased for the library of the College of Agriculture, which is now being formed by purchases from the College funds. Of the total accessions to the University Library not quite one-third (4,924 volumes) were gifts. The most important of these, as well as of the purchases of the year made from the Sage endowment fund, are noted in the report of the Librarian (Appendix XV). Special mention should be made of 798 volumes given by Theodore Stanton, '76, which nearly completes his gift of a full set of the Tauchnitz collection of British and American authors, comprising over 4,000 volumes.

The total recorded use of the general library during the year, excluding all special libraries, was 107,839 volumes. Compared with the total recorded use of the previous year, 109,625 volumes, this shows a slight falling off, but not as great as might have been expected in view of the facts that this was the first complete year in which the special library in Goldwin Smith Hall has been open and that such large addition was made to the library of the College of Agriculture. The open shelf circulating library continues to justify its establishment and is used largely by students in technical courses.

THE INFIRMARY.

The chairman of the Infirmary Committee reports as follows:

"The Infirmary has had an uneventful, and I believe a successful year. It has been an interesting one, as being the first under the operation of the policy of collecting an Infirmary fee of all students, and in consideration therefor of making no charge for two weeks' regular service, either in the Infirmary or in the Ithaca City Hospital. As was expected, the attendance increased, the total days' service exceeding that of the previous year by about 25%, at an increase in cost of a little over 10%. We feel, however, that the Infirmary has better filled its mission to the student body, and that every sick student should be urged to avail himself of its service. I cannot find that the privilege has been abused by students seeking admission when not ill.

"When the Infirmary was opened in the fall of 1898, it was equipped to comfortably accommodate fourteen patients. The total registration at Ithaca for the year 1898–1899 was 1823. Since that time the total number of beds has been increased to twenty-eight, with two additional for emergencies, and occasionally during the past session all of these beds were occupied, and it was necessary to send several students suffering with other than contagious diseases to the City Hospital. The total registration here has increased to about 3800, with the addition during the winter of 364 Short-Course Agricultural students. That this increase has resulted in an overcrowding of the present building is self-evident, and the Board of Trustees has authorized this committee to consult an architect, and prepare plans for an addition to the present building. The architect of the original building, Mr. William H. Miller, the Superintendent, and the individual members of the Infirmary Committee, have been in consultation and are studying the details of the additional facilities needed preparatory to making definite plans."

As will be seen by reference to the Report of the Treasurer (see Schedule xvi, p. 69) the year's income from the Sage endowment fund was $4,930.00, while the expenditures amounted to $13,720.89. The difference was more than made good by the collection of the regular Infirmary fee of $2.00 per term now paid by all students of the University. Receipts from this fee were $14,120, to which is to be added $2,401.97 received from patients for services not covered by the regular fee, making the total receipts from students $16,521.97. So that in spite of an increase in attendance at the Infirmary of 25%, and an increase in cost of maintenance of 10%, receipts for the year overbalanced expenditures by $7,731.08. If the next few years show a corresponding surplus, it will be possible to provide the additional building which has now become a necessity.

Happily the year has been one free from death among students admitted to the Infirmary. Of a total of 670 patients admitted from July 1st, 1908, to July 1st, 1909, as compared with 467 the previous year, 626 were cured, 37 were dismissed as improved, and 7 were transferred to other hospitals. Of the cases treated 413 were medical, 225 surgical, and 32 affections of the eye, ear, and nose. The most frequent ailments were grippe, tonsilitis, appendicitis, and wounds of various kinds. The number of operations during the year was 82. The total number of days for which beds were occupied was 4,149 as compared with 3,141 in 1907–1908, and 2,452 in 1906–1907. The average daily number of patients was 15.4, as compared with 11.9 in 1907–1908, and 9.4 in 1906–1907.

In the presence of these facts everyone connected with the University would echo the sentiment expressed by the President in the Report for 1905–1906 (p. 43): "What blessings the Infirmary has brought to the students of the University is realized vividly by those who enjoy its soothing and healing ministrations and by their parents and friends in far-off homes as well as by the authorities of the University, who rejoice in the perfect solution of one of their most difficult problems."

FINANCES.

In past years the President has devoted considerable space to an exposition of the financial condition of the University. This year for the first time the Treasurer's Report is published as an appendix to this report. To it reference may now be made for all information on this subject.

NEEDS.

On the material side the greatest need of the University is a new chemical laboratory. For two years many students have been excluded from the courses in chemistry simply because there was no room for them in the laboratory, and in quite a number of cases the exclusion has been a source of great embarassment as chemistry was a prescribed subject in the courses taken by these students. There is a large but steady increase of students in the course in agriculture in which chemistry is a prescribed subject. The situation is now so acute that additional space is an imperative necessity if these increasing numbers of students are to receive the instruction for which they come to the University. After a new chemical laboratory, the buildings most needed are a new Armory, new machine shops for Sibley College, a new testing experimental laboratory in Civil Engineering, and the new buildings already described for the colleges of Agriculture and Veterinary Medicine.

For men of great wealth who desire to benefit the higher education of the United States on a large scale no investment could prove so profitable as the establishment of a score or more of research professorships in universities like Cornell. Incumbents of these chairs should be men of great eminence in their several specialties who should be given all the time they need for investigation and research, with the requirement of only a very small amount of teaching to undergraduates.

The 30th of September, 1909, completed the forty-first year of the work of Cornell University. The record of its achievements for the intellectual and scholastic interests of the State and of the Nation is a part of the educational history of the country. On that record the University makes its appeal to the State and to the people for the means it now needs to enlarge and improve its work.

JACOB GOULD SCHURMAN
President.

TREASURER'S REPORT

REPORT.

To the Board of Trustees of Cornell University:

Gentlemen:—Your Treasurer begs to submit herewith his Annual Report for the year ending August 1, 1909:

Total Income ....$	1,142,652 79
Less amount transferred to principal of funds	13,516 85
Income available for the year 1908–9 (See Schedule I)	1,129,135 94
Total expenditures for the year 1908–9 (See Schedule II)	1,132,375 14
Cash deficit for the year 1908–9...................	3,239 20
Increase in amount due special funds during the year	11,076 12
" " " to complete contracts	703 24
Total deficit for year 1908–9	15,018 56
Add: Accumulated deficit August 1, 1908.........	98,454 79
Accumulated deficit August 1, 1909	$113,473 35

Summarized as follows:

	Aug. 1, 1908	Increase during year	Deficit Aug. 1, 1909
Cash deficit	$ 63,708 91	$ 3,239 20	$ 66,948 11
Due special funds	24,913 96	11,076 12	35,990 08
Due to complete contracts	9,831 92	703 24	10,535 16
	$98,454 79	$15,018 56	$113,473 35

Total appropriations for year were ....$		1,181,235 15
" expenditures for year were		1,132,375 14
Balance unexpended ....$		48,860 01
Total income (except State Colleges) ....$		1,142,652 79
Received from N. Y. State for the State College of Agriculture (Schedule XXIV) ....$	163,921 63	
Received from fees, sale of stock, etc ..	95,175 50	259,097 13
Amount carried forward		$1,401,749 92

Amount brought forward		**$1,401,749 92**
Received from N. Y. State for State Veterinary College (Schedule XXIII)	$30,000 00	
Received from fees, etc.	6,954 23	36,954 23
		$1,438,704 15
Received Carnegie Foundation for pensions to retired Professors		$16,909 14

INCOME DUE SPECIAL FUNDS

Agr. Experiment Station Hatch Fund	$ 1,963 17	
Agr. Experiment Station Adams Fund	2,856 51	
Agr. Experiment Station Income Fund	459 98	
Guiteau Income Fund	4,153 97	
Cornell Infirmary Fund	19,023 65	
Agricultural Student Loan Fund	30 33	
Mrs. A. S. Barnes Shakespeare Prize Fund	128 30	
Philo Sherman Bennett Fund	83 88	
Class '94 Debate Prize Fund	15 82	
Class '86 Memorial Prize Fund	91 67	
Hiram Corson Browning Fund	8 31	
Caroline Corson French Fund	21 05	
Fuertes Medal Fund	56 63	
Guilford Essay Prize Fund	16 20	
Luana L. Messenger Prize Fund	203 40	
Polish Students Fund	6 61	
W. C. Siedell Book Fund	69 00	
H. K. White Prize Fund	32 89	
Frances Sampson Fine Arts Fund	29 58	
Woodford Medal Fund	355 75	
Dean Sage Sermon Fund	1 425 00	
Boardman Senior Law Scholarship Fund	16 30	
Mary F. Hall Scholarship Fund	525 70	
Womans Guild Fund	323 28	
Hydraulic Laboratory Com. Account Fund	1,875 36	
Cornell Alumni Endowment Fund	6 16	
American Peony Society Fund	200 00	
Musical Entertainment Fund	416 14	
N. Y. Medical College Fund	518 01	
Loomis Laboratory Fund	333 96	
John M. Polk Prize Fund	74 67	
Library Endowment Fund	540 00	
Flower Library Endowment Fund	19 80	
Barnes Library Endowment Fund	9 00	
Lucy Harris Book Fund	1 80	
W. Fiske Petrarch Book Fund	10 90	
W. Fiske Icelandic Book Fund	14 40	
W. Fiske Publication Book Fund	9 00	
ge Athletic Field Fund	27 40	
ass 1908 Fund	36 50	
Amount carried forward		**$35,990 08**

Amount brought forward		$35,990 08
To complete the contract of last year, it will be necessary to reappropriate the following amounts:		
Architecture	$524 68	
Board of Recommendation	228 09	
Arts & Science Office Expense	53 97	
" " Lectures	164 10	
Archaeology	1,181 36	
Classical Studies	634 76	
Education, School of	92 26	
English	35 58	
Greek	4 98	
History, American	555 29	
" Ancient	42 62	
" Medieval	24 16	
" Modern European	1 62	
Latin	5 07	
Philosophy	170 18	
Political Science Politics	96 09	
" " Finance	52 62	
" " Statistics	81 47	
History & Political Science Pub. Studies	563 74	
Semitics	60 50	
Botany	204 67	
Mathematics	3 59	
Physical Review	28 84	
Civil Engineering	2,170 94	
Law Library	286 69	
Medical Anatomy	57 72	
" Bacteriology	39 01	
" Histology	47 73	
" Obstetrics	25 00	
" Physiology	835 15	
Adv. & Lectures	158 54	
Physical Culture	5 10	
Military	224 10	
Com. on Playgrounds	92 67	
Organ Repairs	44 54	
Mechanical	1,087 85	
Eddy Dam Bridge	250 00	
Automatic Stoker	399 88	$10,535 16
		$46,525 24

CASH STATEMENT

Cash on hand August 1, 1908	$55,741 63	
Received Aug. 1, 1908 to Aug. 1, 1909	3,020,893 29	$3,076,634 92
Disbursed Aug. 1, 1908 to Aug. 1, 1909		3,016,779 06
		$59,855 86

On deposit in First Nat. Bank, Ithaca ...	$42,459 63
" " " " " " ac-count State College of Forestry	8,983 90
On deposit Fifth Ave Trust Co. N. Y. ...	18 01
Cash and drafts in Office	8,394 32
	$59,855 86

PRODUCTIVE FUNDS

Agricultural Student Loan Fund:	
Gift of the School of Practical Agriculture and Horticulture at Briercliff, N. Y., to aid students in the Agricultural College who are working their way through. Established 1908 ....$	298 01
Alumni Endowment Fund:	
Gift of Alumni to the Endowment fund of the University. Established 1908	125 00
Barnes Library Endowment Fund:	
Gift of Mrs. Harriet Barnes Newberry and A. Victor Barnes in memory of their father, the late Alfred Cutler Barnes. Established 1904	5,000 00
Mrs. A. S. Barnes Shakespeare Prize Fund:	
Gift of Mrs. A. S. Barnes, the income to be appropriated as a prize to the undergraduate student, who shall present the best essay upon the writings of Shakespeare. Established 1887	1,000 00
Cottage Renewal Fund:	
Consists of the surplus income from the Campus Cottages owned by the University, in excess of 5½% of the investment value transferred annually to current income; the fund to be held to renew the cottages or replace the investment therein. Established in 1904	9,436 93
Philo Sherman Bennett Fund:	
Gift from the estate of Mr. Bennett, the income to be used for a prize for the best essay discussing the Principles of Free Government. Established 1905	400 00
Amount carried forward	$16,259 94

Amount brought forward	$16,259 94
Class '86 Memorial Prize Fund:	
Gift of the Class of 1886, the income to be awarded annually as a prize in Junior Oratory.........	1,886 00
Class '91 Memorial Fund:	
Gift of Class of 1891, the income to be used for the relief of sick students. Established 1891	580 54
Class '94 Memorial Prize Debate Fund:	
Gift of the Class of 1894, as a foundation of a prize in debate	500 00
Class '96 Memorial Fund:	
Gift of the Class of 1896, as a nucleus for a fund which shall be used for the establishment of a University Club...............	869 57
Class '97 Memorial Fund:	
Gift of Class of 1897, for furthering the plan of a University Club....	1,293 46
Class of '98 Memorial Fund:	
Gift of Class of 1898 to be added to the fund for the establishment of a University Club	376 06
Class of 1908 Fund:	
Established by Class of 1908 to be invested with University funds, the income less 5% transferred to University Surplus Fund to be paid over to Class Secretary. When no longer needed by the Class the fund is to revert to the University for general University purposes unless the Class at some regular meeting designate a particular University purpose for its use. Established 1908	1,480 41
College Land Script Fund:	
Consists of the proceeds received by the State of New York from the sale of the Land Scrip apportioned to the State by the U. S. under the Morrill Act of 1862....	688,576 12
Cornell Endowment Fund:	
Consists of the $500,000 given by Ezra Cornell, pursuant to his agreement with the State, for the founding of the University, together with the net profits derived from the sale of lands	
Amount carried forward	$711,822 10

Amount brought forward	$ 711,822 10
located under the scrip purchased by him under his contract with the State, of Aug. 4, 1866 ..	4,927,936 38
Cornell Endowment Reserve Fund:	
Established in 1898 by setting aside the Land Contracts and proceeds from the future sales of Western Lands, the principal and income to be used only for addition to Cornell Endowment Fund	522,020 00
Cornell Infirmary Fund:	
Gift of Messrs. Dean and William H. Sage, the income to be used for the maintenance and needs of the Cornell Infirmary, established by them as a memorial to their father, Henry W. Sage, said Infirmary being the former residence of Henry W. Sage and valued at $60,000. Established 1897	100,000 00
Caroline Corson French Prize Fund:	
Gift of Professor Hiram Corson in memory of his wife, Caroline Rollin Corson, the income to be awarded in the form of a medal as a French Prize. Established in 1902 as a Dante Prize, and converted to a French Prize in 1905 .	1,219 11
Hiram Corson Browning Prize Fund:	
Gift of Professor Hiram Corson, the income to be awarded in the form of a medal as a Browning Prize. Established 1902	1,051 80
Daughters of the Revolution Endowment Fund:	
Gift of Miss Mary F. Hall, in honor of the N. Y. State Society of the Daughters of the Revolution, the income to be added to the fund during Miss Hall's lifetime and then, provided principal amounts to $1,000, to be used for the publication of such original studies in American History as are of permanent value, or as a suitable prize or prizes for research or superior attainments in American History. Established 1908 .	524 65
Fayerweather Fund:	
Gift under the will of Daniel B. Fayerweather. Established 1892	323,684 59
Amount carried forward	$6,588,258 63

Amount brought forward	$6,588,258 63
Willard Fiske Library Endowment Fund: Gift under the Will of Willard Fiske, to be used and expended for the uses and purposes of the Library of the University. Established 1906	427,531 00
Willard Fiske Icelandic Book Fund: Gift under the Will of Willard Fiske, the income to be used for the purpose of making additions to the Icelandic Collection in the Library of the University. Established 1906	8,000 00
Willard Fiske Icelandic Salary Fund: Gift under the Will of Willard Fiske, the income to be used for the purpose of paying the salary of an Icelandic amanuensis, whose time shall be given to the care of the Icelandic collection, and who shall be a native of Iceland, educated, or principally educated in Iceland, and recommended for the said work by the Rector of the Latin School at Reykjavik. Established 1906	30,000 00
Willard Fiske Petrarch Book Fund: Gift under the Will of Willard Fiske, the income to be used for the purpose of increasing the Petrarch and Dante collections in the Library of the University. Established 1906	6,000 00
Willard Fiske Petrarch Salary Fund: Gift under the Will of Willard Fiske, the income to be used in paying the salary, or a part of the salary, of a capable amanuensis, a portion of whose time shall be given to the care of the Petrarch and Dante collections. Established 1906	12,000 00
Willard Fiske Icelandic Publication Fund: Gift under the Will of Willard Fiske, the income to be used for the purposes of the publication of an annual volume relating to Iceland and the Icelandic collection in the Library of the University. Established 1906	5,000 00
Amount carried forward	$7,076,789 63

Amount brought forward	$7,076.789 63
R. P. Flower Library Endowment Fund:	
Established in 1901 by a gift of Mrs. Sarah M. Flower of $10,000 the income to be used for the purchase and binding of books and periodicals for the Roswell P. Flower Library, founded by Governor Flower for the Veterinary College by a gift of $5,000 in 1897. $1,000 remaining unexpended at the time of his death is added to the endowment	11,000 00
Fuertes Medal Fund:	
Gift of the late Estevan A. Fuertes, the income to provide two medals, to be awarded annually; one to the student graduating, who has maintained the highest degree of scholarship during his four years; the other to the graduate, who may write a meritorious paper on some engineering subject. Established in 1893	1,000 00
General Fund:	
Consists of the endowment of not less than $100,000 available for maintenance of Rockefeller Hall; required as a condition precedent to John D. Rockefeller gift......	106,000 00
Guiteau Student Loan Fund:	
Gift under the Wills of Frederick W. Guiteau and Mrs. Nancy G. Howe ($94, 689.03) the income to be used in advancing and assisting needful worthy young men in pursuing their studies. Established 1904	231,078 59
Guilford Essay Prize Fund:	
Gift under the Will of James B. Guilford to establish a prize, the object whereof shall be the promotion of a high standard of excellence in English prose composition. Established 1902	3,000 00
Mary F. Hall Scholarship Fund:	
Gift of Miss Mary F. Hall, the income to be paid to her during her lifetime, and at her death to be be used for scholarships. Established 1902	16,500 00
Amount carried forward	$7,445,368 22

Amount brought forward	$7,445,368 22
Lucy Harris Book Fund:	
Gift of George W. Harris, as a memorial to his wife, Lucy Thurber Harris, the income to be expended each year in the purchase of English Poetry of the Victorian Era, and of biography and criticism connected therewith. Established 1893	1,000 00
Law School Fund:	
Gift of Douglass Boardman, the income to be used for a Law Prize. Established 1887	2,000 00
Henry W. Sage Library Endowment Fund:	
Gift of Henry W. Sage for endowment of Library. Established 1891	300,000 00
Susan E. Linn Sage Professorial Fund:	
Gift of Henry W. Sage to endow the Chair of Ethics and Philosophy. Established 1885	50,000 00
Susan E. Linn Sage School of Philosophy Fund:	
Gift of Henry W. Sage to enlarge the basis of the Susan Linn Sage Foundation and establish the Susan Linn Sage School of Philosophy. Established 1891 .	200,000 00
Loomis Laboratory Fund:	
Consists of the endowment of the Loomis Laboratory turned over to the University by the Trustees at the time the Laboratory was transferred to Cornell. Established 1899	118,176 79
Luana L. Messenger Prize Fund:	
Gift of H. J. Messenger in memory of his mother, for an annual prize to the student writing the essay giving evidence of the best research and most fruitful thought in the field of human progress, or the evolution of civilization. Established 1902	1,000 00
Frank William Padgham Scholarship:	
Gift of Amos Padgham, to found a scholarship in Sibley College in memory of his son. Established 1892	3,000 00
Amount carried forward	$8,120,545 01

Amount brought forward	$7,076.789 63
R. P. Flower Library Endowment Fund:	
Established in 1901 by a gift of Mrs. Sarah M. Flower of $10,000 the income to be used for the purchase and binding of books and periodicals for the Roswell P. Flower Library, founded by Governor Flower for the Veterinary College by a gift of $5,000 in 1897. $1,000 remaining unexpended at the time of his death is added to the endowment	11,000 00
Fuertes Medal Fund:	
Gift of the late Estevan A. Fuertes, the income to provide two medals, to be awarded annually; one to the student graduating, who has maintained the highest degree of scholarship during his four years; the other to the graduate, who may write a meritorious paper on some engineering subject. Established in 1893	1,000 00
General Fund:	
Consists of the endowment of not less than $100,000 available for maintenance of Rockefeller Hall; required as a condition precedent to John D. Rockefeller gift......	106,000 00
Guiteau Student Loan Fund:	
Gift under the Wills of Frederick W. Guiteau and Mrs. Nancy G. Howe ($94, 689.03) the income to be used in advancing and assisting needful worthy young men in pursuing their studies. Established 1904	231,078 59
Guilford Essay Prize Fund:	
Gift under the Will of James B. Guilford to establish a prize, the object whereof shall be the promotion of a high standard of excellence in English prose composition. Established 1902	3,000 00
Mary F. Hall Scholarship Fund:	
Gift of Miss Mary F. Hall, the income to be paid to her during her lifetime, and at her death to be be used for scholarships. Established 1902	16,500 00
Amount carried forward	$7,445,368 22

Amount brought forward	$7,445,368	22
Lucy Harris Book Fund:		
Gift of George W. Harris, as a memorial to his wife, Lucy Thurber Harris, the income to be expended each year in the purchase of English Poetry of the Victorian Era, and of biography and criticism connected therewith. Established 1893	1,000	00
Law School Fund:		
Gift of Douglass Boardman, the income to be used for a Law Prize. Established 1887	2,000	00
Henry W. Sage Library Endowment Fund:		
Gift of Henry W. Sage for endowment of Library. Established 1891	300,000	00
Susan E. Linn Sage Professorial Fund:		
Gift of Henry W. Sage to endow the Chair of Ethics and Philosophy. Established 1885	50,000	00
Susan E. Linn Sage School of Philosophy Fund:		
Gift of Henry W. Sage to enlarge the basis of the Susan Linn Sage Foundation and establish the Susan Linn Sage School of Philosophy. Established 1891 .	200,000	00
Loomis Laboratory Fund:		
Consists of the endowment of the Loomis Laboratory turned over to the University by the Trustees at the time the Laboratory was transferred to Cornell. Established 1899	118,176	79
Luana L. Messenger Prize Fund:		
Gift of H. J. Messenger in memory of his mother, for an annual prize to the student writing the essay giving evidence of the best research and most fruitful thought in the field of human progress, or the evolution of civilization. Established 1902	1,000	00
Frank William Padgham Scholarship:		
Gift of Amos Padgham, to found a scholarship in Sibley College in memory of his son. Established 1892	3,000	00
Amount carried forward	$8,120,545	01

Amount brought forward	$8,120,545	01
Polish Student Loan Fund:		
Gift from Polish students at Cornell to be disbursed to candidates presented by members of the Polish Club of the University. Established 1909	134	00
John Metcalf Polk Prize Fund:		
Gift of Wm. M. Polk to found a prize in the Cornell Medical College at N. Y. in memory of his son. Established 1905	10,000	00
Professorial Pension Fund:		
Anonymous gift of $150,000 to found a pension fund for full professors, excluding professors in the Medical College in New York City, or in State or National Institutions at Ithaca or elsewhere, together with the income received thereon. Established 1903	204,936	22
Professorial Pension Income Fund:		
Consists of the payments of professors admitted to the benefits of the Pension Fund, with accrued income	16,280	32
Charles H. Roberts Scholarship Fund:		
Gift of Charles H. Roberts of Oakes, Ulster Co. New York, the income to be used in the payment of five equal annual scholarships in the College of Agriculture, and open to all races of mankind, regardless of color, or political, or religious creeds, of good moral character and required qualifications, preference to be given to intelligence, and financial inability. Established 1906	30,000	00
Sage College Endowment Fund:		
Gift of Henry W. Sage. Established 1872	109,300	00
Dean Sage Sermon Fund:		
Gift of Dean Sage in 1872, as an endowment of Sage Chapel, and increased by recent gifts from Mrs. Sage	75,000	00
Frances Sampson Fine Arts Prize:		
Gift of Professor Martin W. Sampson in memory of his wife to be		
Amount carried forward	$8,566,195	65

Amount brought forward	$8,566,195 65
awarded in books or artistic reproductions and not in money, to that student in the University who shows the most intelligent appreciation of the graphic arts and architecture. Established 1909	600 00
Wm. C. Seidell Book Fund: Gift of Mr. and Mrs. Gerritt S. Miller, the income to be used to purchase books for poor young men working their way through the College of Civil Engineering. Established 1905	1,000 00
Sibley College Endowment Fund: Gift of Hiram Sibley. Established 1884	50,000 00
Town of Spencer Scholarship for Young Women Fund: Gift of Miss Mary F Hall, to found a scholarship for young women of Spencer, the income however, to be paid to her during her lifetime	2,500 00
Surplus Fund: Consists of 5% on annual income to cover such losses as may occur through bad investments, fire or otherwise. Established 1886	3,441 34
Accumulations used for purchase of land and erection of buildings.	
H. K. White Prize Fund: Gift of Horace K. White, the income to be awarded as prizes to meritorious students in Veterinary Science	500 00
Women's Guild Fund: The gift of women interested in the University, the income to be used to aid needy sick students. Established 1892	6,557 41
Women Student's Loan Fund: Consists of former Student Loan Fund, the income to be loaned to needy women students	7,068 28
Woodford Medal Fund: Gift of Trustee Stewart L. Woodford for prizes in Oratory. Established 1870	2,500 00
Amount carried forward	$8,640,362 58

Amount brought forward		$8,640,362 58
Income due Special Funds(list 1st page)		35,990 08
Premium and Discount		149,079 84
Profit on Foreclosure property sold		31,123 74
		$ 8,856,556 24
Less Deficit of Income not including amount due to complete contracts.		102,938 19
		$ 8,753,618 05

OTHER PROPERTY

Real Estate (See Schedule XVI)	$3,885,041 46	
Equipment (See Schedule XVII)	1,779,843 54	5,664,885 00
Total property exclusive of Western Lands		$14,418,503 05
State College Buildings	418,797 67	
State College Equipment	154,772 30	573,569 97
		$14,992,073 02

WESTERN LANDS

Sales for year ending August 1, 1909, were:

$953\frac{76}{100}$ acres Farm Land averaging $4.66 per acre	$	4,450 00
Received for Hay		27 00
Total sales	$	4,477 00

(See Appendix Schedules XVIII to XXII).

Land remaining unsold Aug. 1, 1909		1,819 31 acre
Located in Wisconsin	1,699 37	
" " Minnesota	119 94	

Pine remaining Aug. 1, 1909, 12 M ft.

Total receipts during the year	$	15,697 77
Total expenses during the year		607 38
Excess of receipts over expenses	$	15,090 39

(See Appendix Schedule XV).

Balance due on Land and Timber Contracts	$	91,804 77

Respectfully submitted,
E. L. Williams, *Treasurer.*

APPENDIX.

Schedule 1.—Income Aug. 1, 1908 to Aug. 1, 1909.
" 2.—Appropriations and Expenditures Aug. 1, 1908 to Aug. 1, 1909.
" 3.—Condensed and Combined Income and Expense Statement.
" 4.—Trial balance, general ledger, Aug. 1, 1909.
" 5.—Trial balance, State College Forestry, admin. account, Aug. 1, 1909.
" 6.—Trial balance, State College Forestry, lumbering account, Aug. 1, 1909.
" 7.—Trial balance, State Veterinary College, Aug. 1, 1909.
" 8.—Trial balance, Medical College, N. Y. City, Aug. 1, 1909.
" 9.—Securities.
" 10.—Foreclosure account.
" 11.—Suspense account.
" 12.—Summary of interest rates and classification of investments.
" 13.—Changes in investments. Aug. 1, 1908 to Aug. 1, 1909.
" 14.—Capital account.
" 15.—Balances due on contracts.
" 16.—Real estate.
" 17.—Equipment.
" 18.—Receipts and disbursements account Western Lands.
" 19.—Trial balance, land ledger.
" 20.—Sales of land, Aug. 1, 1908 to Aug. 1, 1909.
" 21.—Summary of balances due on contracts.
" 22.—Summary of acreage.
" 23.—State Veterinary College.
" 24.—State College of Agriculture.
" 25.—State College of Forestry.
" 26.—Cornell Infirmary.
" 27.—Surplus Fund.
" 28.—Student Loan Funds.
" 29.—Donations.
" 30.—Estimated income for 1909–1910.
Certificate of auditing committee.

SCHEDULE I

INCOME AUG. 1, 1908 TO AUG. 1, 1909

Income Agricultural Student Loan Fund	$	15 43
" Alumni Endowment Fund		6 16
Amount carried forward	$	21 59

	Amount brought forward	$ 21	59
Income	A. C. Barnes Reference Library Fund	246	50
“	A. S. Barnes Shakes. Prize Fund	49	30
“	Cottage Renewal Fund	441	50
“	Philo Sherman Bennett Prize Fund	19	72
“	Class '86, Memorial Fund	92	98
“	“ '91 Memorial Fund	27	37
“	“ '94 Prize Fund	24	65
“	“ '96 Memorial Fund	40	86
“	“ '97 Memorial Fund	60	77
“	“ '98 Alumni Hall Fund	16	82
“	“ '08 Fund	36	50
“	Cornell Endowment Fund	246,118	25
“	Cornell Reserve Endowment Fund	25,735	59
“	Cornell Infirmary Fund	4,930	00
“	Caroline Corson French Prize Fund	60	10
“	Hiram Corson Browning Fund	51	85
“	Fayerweather Fund	15,957	65
“	Willard Fiske Library Fund	21,077	28
“	Willard Fiske Icelandic Book Fund	394	40
“	Willard Fiske Icelandic Salary Fund	1,479	00
“	Willard Fiske Petrarch Salary Fund	591	60
“	Willard Fiske Petrarch Book Fund	295	80
“	Willard Fiske Publication Fund	246	50
“	R. P. Flower Library Fund	542	30
“	Fuertes Medal Fund	49	30
“	General Fund	5,225	80
“	F. W. Guiteau Student Loan Fund	6,724	01
“	Nancy Howe Guiteau Student Loan Fund	4,668	17
“	Guilford Essay Prize Fund	147	90
“	Mary F. Hall Scholarship Fund	753	45
“	Mary F. Hall D. A. R. Fund	24	65
“	Lucy Harris Book Fund	49	30
“	Law School Fund	98	60
“	Library Endowment Fund	14,790	00
“	S. E. Linn Sage Prof. Fund	2,465	00
“	S. E. Linn Sage School Phil. Fund	9,860	00
“	Loomis Laboratory Endowment	5,825	12
“	L. L. Messenger Prize Fund	49	30
“	F. W. Padgham Prize Fund	147	90
“	Polish Student Loan Fund	6	61
	Amount carried forward	$369,444	08

Amount brought forward	$369,444 08	
Income J. M. Polk Prize Fund	493 00	
" Professorial Pension Fund	9,628 66	
" Professorial Pension Income Fund	764 91	
" Chas. H. Roberts Scholarship Fund	1,200 00	
" Sage College Endowment Fund	5,388 49	
" Dean Sage Sermon Fund	3,697 50	
" Frances Sampson Prize Fund	29 58	
" Wm. Siedell Book Fund	49 30	
" Sibley College Endowment Fund	2,465 00	
" Surplus Fund	45 85	
" Town Spencer Scholarship Fund	123 25	
" H. K. White Prize Fund	24 65	
" Womans Guild Fund	323 28	
" Woodford Medal Fund	123 25	
" Womans Loan Fund	332 09	$394,132 80
" College Land Scrip Fund		$34,428 80
Rent Sage College	$12,158 19	
" Sage College Cottage	2,960 50	
" Farm Houses	1,137 50	
" Cascadilla Building	7,226 25	
" Cornell Co-op. Society	768 81	
" Morse Hall	250 00	
" Military Hall	160 00	
" Ground	41 00	
" Safe Deposit Boxes	100 00	$ 24,802 25
Fees Botanical Laboratory	1,793 25	
" Chemical Laboratory	28,038 75	
" Civil Engineering Laboratory	526 50	
" Geological Laboratory	873 45	
" Medical Anatomical Laboratory	384 00	
" " Biochemical Laboratory	274 57	
" " Histological Laboratory	645 50	
" " Physiological Laboratory	116 50	
" Neurological Laboratory	778 50	
" Physical Laboratory	3,256 00	
" Physical Culture	1,433 05	
" Physical Geography	157 50	
" Political Science	619 50	
" Sibley	22,439 50	
" Matriculation	6,875 00	
" Diplomas	7,891 30	
" Gymnasium Lockers	6,323 00	
" Infirmary	16,521 97	$98,947 84
Tuition { Regular Session	$ 310,154 12	
Tuition { Summer Session	21,399 96	
Tuition { Tuition Notes paid	2,591 00	$334,145 08
Amount carried forward		$886,456 79

Amount brought forward		$886,456 79
Mechanical Department	$885 46	
Mechanical Laboratory	731 88	
Civil Engineering Hydr. Laboratory	318 00	1,935 34
Musical Entertainments	$ 64 56	
Publishing H. & P. S. Studies	202 55	
Ten Year Book	552 41	
Associate Alumnae Scholarship	100 00	
Interest on Students Notes	491 29	$1,410 81
Donations:		
Agricultural Debate Prize	$ 36 00	
Brooklyn Alumni for Fall Greek Gorge	100 00	
George Boldt Ice Box	1,000 00	
Sage Athletic Field Fund	210 50	$1,346 50
Agricultural Experiment Station Hatch	13,500 00	
" " " Adams	10,350 00	
" " " Income	96 72	23,946 72
Congressional Industrial Fund, Morrill	$25,000 00	
Congressional Industrial Fund, Nelson	10,000 00	35,000 00
		$950,096 14
Deduct transferred to Medical account at N. Y.		
Income of Loomis Laboratory Endowment	$5,706 00	
Income on J. M Polk Prize Fund	500 00	6,206 00
		$943,890 14
Income Medical College at New York City:		
Students	$ 26,733 35	
Miscellaneous	5,823 30	
Loomis Laboratory Endowment	5,706 00	
J. M. Polk Prize	500 00	
Oliver H. Payne	160,000 00	198,762 65
Deduct amounts transferred to Principal		$1,142,652 79
5% of General Income (not including income on Special Funds) transferred to Surplus	$37,465 46	
Less restored to Income by order of Board of Trustees	35,000 00	
	2,465 46	
Income Class '91 Memorial Fund	27 37	
" " '96 " "	40 86	
" " '97 " "	60 77	
Amounts carried forward	$2,594 46	$1,142,652 79

Amounts brought forward	$2,594 46	$1,142,652 79
Income Class '98 Alumni Hall Fund ...	16 82	
" Professorial Pension Fund	9,628 66	
" Professorial Pension Income Fund	764 91	
" Surplus Fund	45 85	
" Cottage Renewal Fund	441 50	
" D. A. R. Prize Fund	24 65	13,516 85
Total Income available for year 1908–1909		$1,129, 135 94

SCHEDULE II

APPROPRIATIONS 1908–1909, EXPENDITURES ACCOUNT SAME AND BALANCES UNEXPENDED

	Appropriations	Expended	Balance Unexpended
Agriculture	$ 5,700 00	$ 5,700 00	
Agric. Cong. Ind. Fund ...	14,000 00	14,000 00	
Agric Exp. Station, Hatch	15,653 93	13,690 76	1,963 17
" " " Adams	12,715 45	9,858 94	2,856 51
" " " Income	520 79	60 81	459 98
" Student Loan Fd. Inc	30 33		30 33
Architecture	3,000 00	2,475 32	524 68
Arts & Sciences			
Announcements	500 00	500 00	
Board of Recommendations	614 32	386 23	228 09
Office Expense.........	1,051 00	997 03	53 97
Lectures	400 00	235 90	164 10
(*a*) Arts Departments:			
American Class. Sch. Athens	250 00	250 00	
American Class. Sch. Rome	250 00	250 00	
American Class. Sch. Jerusalem...........	100 00	100 00	
Archaeology	1,737 07	555 71	1,181 36
Classical Studies	639 67	4 91	634 76
Pedagogy	446 93	354 67	92 26
Elocution & Oratory....	184 64	184 64	
English, Cong. Ind. Fund	1,000 00	1,000 00	
English	83 65	48 07	35 58
French	50 00	50 00	
German	50 00	50 00	
Greek	50 00	45 02	4 98
American History	574 71	19 42	555 29
Ancient History	55 17	12 55	42 62
Medieval History	27 16	3 00	24 16
Modern European History	64 64	63 02	1 62
Latin	100 00	94 93	5 07
Philosophy............	285 18	115 00	170 18
Psychology	1,500 00	1,500 00	
Amounts carried forward	**$61,634 64**	**$52,605 93**	**$9,028 71**

Amounts brought forward	$61,634 64	$52,605 93	$9,028 71
Philosophical Review ..	1,654 17	1,654 17	
Political Science & Politics	240 22	144 13	96 09
" " " Finance	259 42	206 80	52 62
Political Science & Statistics	403 20	321 73	81 47
Political Science & Pub. Stud................	563 74		563 74
Semitics	131 65	71 15	60 50
(*b*) Science Departments:			
Botany	3,599 39	3,394 72	204 67
Chemistry	25,738 78	25,738 78	
Geology	1,719 82	1,719 82	
Mathematics	164 42	160 83	3 59
" etc. Cong. Ind. Fd..	6,000 00	6,000 00	
Neurology	1,324 26	1,324 26	
Physical Geography	729 16	729 16	
Physical Review	705 25	676 41	28 84
Physical	8,500 00	8,500 00	
Athletics:			
Rent of Office	200 00	200 00	
Buildings and Grounds:			
Care of Buildings.......	10,400 00	10,400 00	
Care of Grounds	9,727 95	9,727 95	
Electric Service	1,536 96	1,536 96	
" Lt. and Pow. Labor	3,200 00	2,998 43	201 57
Boardman Hall Wiring .	3,000 00	2,333 49	666 51
Fuel .... $25,000 00 Less Amount transferred to Central Ave. Steam Main 11,051 74	13,948 26	13,948 26	
Goldwin Smith Hall	50,000 00	50,000 00	
Heating Labor.........	4,150 00	4,150 00	
Repairs...............	12,450 00	12,450 00	
Steam, Water & Sewer Repairs.............	3,500 00	3,500 00	
University Water Works	2,200 00	2,200 00	
Alterations in McGraw, White, Lincoln and Morrill Halls	1,200 00	1,200 00	
1908–1909 alterations in McGraw, White, Goldwin Smith Hall, Sage Chapel and Hydr. Lab.	5,000 00	5,000 00	
Civil Engineering	9,000 00	6,829 06	2,170 94
Guiteau Fund Income	11,956 07	7,802 10	4,153 97
Cornell Infirmary	32,744 54	13,720 89	19,023 65
Amounts carried forward	$287,581 90	$251,245 03	$36,336 87

Amounts brought forward		$287,581 90	$251,245 03	$36,336 87
Interest and Annuities:				
Mitchell Bond Interest ..		225 00	225 00	
Preswick Annuity		300 00	300 00	
Fiske Annuities:				
Monzecchi		2,200 00	2,200 00	
Grimsey		1,000 00	1,000 00	
W. O. Fiske		1,000 00	1,000 00	
Law:				
Law School		1,550 00	915 58	634 42
Law Library		3,183 26	2,896 57	286 69
Library..................		43,486 19	43,486 19	
Medical College, Ithaca:				
Anatomy		2,936 85	2,879 13	57 72
Bacteriology		461 96	422 95	39 01
Histology		2,031 30	1,983 57	47 73
Obstetrics		25 00		25 00
Physiology		4,500 00	3,664 85	835 15
Surgery		21 20	21 20	
Embryology Research ..		250 00	250 00	
Music		5,700 00	5,700 00	
Operating Expenses:				
Advertising and Lectures		600 00	441 46	158 54
Attorneys Fees and Expenses		1,500 00	1,500 00	
Beebe Dam Changes ...		895 92	895 92	
Bell Ringing		229 68	229 68	
Contingent				
General Expenses .				
General Expenses	10,145 27			
Commencement Exp.........	110 51			
Emerson House Heat	80 00			
Gas	203 38			
Stamps	1,467 42			
Weekly Calendar	161 00			
	*12,167 58	12,215 22	*12,167 58	47 64
C. U. C. A. Hand Book .		100 00	100 00	
Insurance		6,000 00	6,000 00	
Printing and Stationery		5,500 00	5,151 89	348 11
Reading Entrance Exam Papers		600 00	600 00	
Register		4,500 00	4,500 00	
Ten Year Book		2,400 00	2,345 72	54 28
Chimes Reconstruction and Lighting Clock...		8,000 00	8,000 00	
Adding Machine		450 00	450 00	
Amounts carried forward		$399,443 48	$360,572 32	$38,871 16

Amounts brought forward	$399,443 48	$360,572 32	$38,871 16
Physical Education:			
Military	1,214 89	990 79	224 10
Physical Culture and Lockers	2,943 72	2,938 62	5 10
Com. on Playground	150 00	57 33	92 67
Prizes:			
Mrs. A. S. Barnes Shakespeare	178 30	50 00	128 30
Philo S. Bennett	83 88		83 88
Class '94 Debating	40 82	25 00	15 82
Class '86 Memorial	177 67	86 00	91 67
Hiram Corson Browning	58 31	50 00	8 31
Caroline Corson French	121 05	100 00	21 05
Fuertes Medal	106 63	50 00	56 63
Guilford Essay	166 20	150 00	16 20
Luana L. Messenger	203 40		203 40
W. C. Siedell Book	119 00	50 00	69 00
Sibley	100 00	100 00	
White Veterinary	47 89	15 00	32 89
Woodford Medal	455 75	100 00	355 75
Sage Chapel:			
Dean Sage Sermon Fund	4,575 00	3,150 00	1,425 00
Expense	750 00	750 00	
Organ Repairs	150 00	105 46	44 54
Sage College Income	20,507 18	11,356 88	
Sage College Repairs		9,150 30	
Salaries	444,289 86	444,289 86	
Summer Session	23,351 47	23,351 47	
Scholarships and Fellowships	23,700 00	22,283 33	1,416 67
Associate Alumnae Schol.	100 00	100 00	
Boardman Senior Law Schol	116 30	100 00	16 30
Mary F. Hall Scholarships	1,350 70	825 00	525 70
F. W. Padgham Scholarship	170 00	170 00	
C. H. Roberts Agr'l Schol.	1,200 00	1,200 00	
Sibley College	19,607 82	18,519 97	1,087 85
Mechanical, Cong. Ind. Fund	14,000 00	14,000 00	
Intercollegiate Debate	100 00	100 00	
Fall Creek Gorge Imp.—Brooklyn Alumni	520 70	520 70	
Hydraulic Lab. Com. account	1,983 86	108 50	1,875 36
American Peony Association	200 00		200 00
Musical Entertainments	624 94	208 80	416 14
Eddy Dam Bridge	250 00		250 00
Automatic Stoker	500 00	100 12	399 88
Central Avenue Steam Main	11,051 74	11,051 74	
Mech. Laby. Commercial account	731 88	731 88	
Amounts carried forward	$975,442 44	$927,509 07	$47,933 37

Amounts brought forward	$975,442 44	$927,509 07	
Rose-Bryn Farm.........	1,200 00	1,200 00	
Fisher Lot	275 00	275 00	
Stimson Hall Repairs	3,335 03	3,335 03	
Agricultural Debate Prize .	36 00	36 00	
	$ 980,288 47	932,355 10	47,933 37
Medical College, N. Y. City	200,946 68	200,020 04	926 64
	$ 1,181,235 15	1,132,375 14	48,860 01

Paid pensions from funds received from Carnegie Foundation	$16,909 11

SCHEDULE III

CONDENSED AND COMBINED INCOME STATEMENT

	University at Ithaca	University at New York	State Veterinary College	State Agr. College	Total
Tuition	$312,745 12	$ 16,945 00	$ 1,465 00	$	$ 331,155 12
Summer Session	21,399 96				21,399 96
Laboratory and other fees	98,947 84	9,788 35	2,559 60	12,549 62	123,845 41
Total from students	433,092 92	26,733 35	4,024 60	12,549 62	476,400 49
From general invested funds	411,267 71	6,206 00			417,473 71
From special invested funds	11,087 89				11,087 89
Sage College and Cottage	15,118 69				15,118 69
Rents of Buildings and Cottages	9,683 56		30 00		9,713 56
From U. S. or State of New York	35,000 00		30,000 00	163,921 63	228,921 63
Agr. Experiment Station	23,946 72				23,946 72
Donations to current income	1,346 50	160,000 00			161,346 50
Departments (not from students)	1,935 34	4,918 01	2,649 63	82,625 88	92,128 86
Unusual Items	819 52		250 00		1,069 52
Miscellaneous	591 29	905 29			1,496 58
	$943,890 14	$198,762 65	$36,954 23	$259,097 13	$1,438,704 15

CONDENSED AND COMBINED EXPENSE STATEMENT

	University at Ithaca	University at New York	State Veterinary College	State Agr. College	Total
Salaries	$475,539 86	$136,791 12	$20,857 85	$ 73,667 19	$ 706,856 02
Departments	106,716 87	25,757 04	8,991 08	143,650 57	285,115 56
General Expenses	110,697 12	20,123 53	8,842 15	43,689 04	183,351 84
Prizes, Scholarships, Fellowships and Loans	32,467 43	500 00			32,967 43
Sage College and Cottage	11,356 88				11,356 88
Summer Session	23,351 47				23,351 47
Agr. Experiment Station	23,610 51				23,610 51
Library	46,382 76	1,081 60	206 50		47,670 86
New Buildings	50,000 00		6,796 67		56,796 67
Extraordinary Repairs	32,966 48	15,766 75			48,733 23
Chimes reconstruction	8,000 00				8,000 00
Special Extension Work			279 76	10,244 65	10,524 41
Income transferred to principal	13,516 85				13,516 85
Miscellaneous	9,790 72				9,790 72
Real Estate	1,475 00				1,475 00
	$945,871 95	$200,020 04	$45,974 01	$271,251 45	$ 1,463,117 45

SCHEDULE IV

BALANCE GENERAL LEDGER, AUG. 1, 1909

Campus Cottages	$ 57,460	86
Sage Block	31,000	00
Inc. Padgham Schol. Fd.....	19	10
Cent. Ave. Steam Main	1,463	86
Repairs	5,794	30
Sage College Repairs	21,178	30
Bonds & Mortgages	1,079,440	00
Bennett Fund Mtgs	1,860	00
Municipal & R.R. bds. and Stocks	7,090,016	12
Bills Receivable	144,240	00
W. State Contract	450	00
Foreclosure Accounts	15,945	65
Cash...........	59,855	86
State App. Agr. Equip	5,665	45
State Appr. Ext. Work No. 1...	5,844	18
State Appr. Ext. Work No. 2...	1,407	18
State College Forestry Lumb.Ac.	180	31
State Vety. Col. Appr	279	76
Students	2,228	53
Students Notes..	32,786	05
Columbia Trust Co	20,983	00
Equitable Trust Co	21,180	70
Ithaca Trust Co ..	25,942	52
Lewis Inv. Bond Suit	2,836	11
Mercantile Trust Co	22,465	30
Metropolitan Trust Co	16,573	88
Morton Trust Co	1,746	30
Union Trust Co .	1,842	08
U. States Trust Co	1,524	49
Am't forwarded	$8,672,209	89

Agr. Student Loan Fd	$ 298	01
Alumni Endow Fund	125	00
Barnes Lby. End. Fund	5,000	00
Mrs. A. S. Barnes Shak. Prize ..	1,000	00
E. J. Bennett Book Fd	2,060	90
Cottage Renewal Fund	9,436	93
Philo Sherman Bennett Fund.	400	00
Class '86 Mem. Prize Fund ...	1,886	00
Class '91 Mem Fund	580	54
Class '94 Debate Prize Fund ...	500	00
Class '96 Mem. Fund	869	57
Class '97 Mem. Fund	1,293	46
Class '98 Alumni Hall Fund ...	376	06
Class '08 Fund ..	1,480	41
College Land Scrip Fund	688,576	12
Cornell Endow. Fund	628,596	61
Cornell Infirmary Fund	100,000	00
Caroline Corson French Prize Fd..........	1,219	11
Hiram Corson Browning Prize Fund	1,051	80
Fayerweather Fd	323,684	59
W. Fiske Lib. End. Fund ...	427,531	00
W. Fiske Ice'd Bk. Fund	8,000	00
W. Fiske Ice'd Sal. Fund	30,000	00
Am't forwarded	$2,233,966	11

Am't bro't forward........	$8,672,209	89
Inventories	1,779,843	54
Real Estate.....	3,885,041	46
Farm Land Purchase	29,773	49
Suspense Account	5,010	00
Expense Accounts	6,738	24
Departments ...	701	12
Sundry Persons .	3,871	59
Double Tenant House	1,500	00
Am't forwarded	$14,384,689	33

Am't bro't forward........	$2,233,966	11
W. Fiske Pet'h Sal. Fund	12,000	00
W. Fiske Pet'h Bk. Fund	6,000	00
W. Fiske Public'n Fund	5,000	00
R. P. Flower Library End. Fd	11,000	00
Fuertes Medal Fd	1,000	00
General Fund ..	106,000	00
F. W. Guiteau Student Loan Fund	136,389	56
Nancy G. Howe Guiteau Loan Fund	94,689	03
Guilford Essay Prize Fund ...	3,000	00
Mary F. Hall Schol. Fund ..	16,500	00
Mary F. Hall D. A. R. Fund ...	524	65
Lucy Harris Book Fund	1,000	00
Law School Fund	2,000	00
Library Endow. Fund	300,000	00
Susan E. Linn Sage Prof. Fd .	50,000	00
Susan E. Linn Sage School Phil Fund	200,000	00
Loomis Laby. End. Fund ...	118,176	79
Luana L. Messenger Prize Fd	1,000	00
F. W. Padgham Schol. Fund ..	3,000	00
Polish Student Loan Fund ...	134	00
J. M. Polk Pz. Fd	10,000	00
Professorial Pension Fund	204,936	22
Chas. H. Roberts Schol. Fund ..	30,000	00
Sage College End. Fund	109,300	00
Am't forwarded	$3,655,616	36

Am't bro't forward	$14,384,689 33	Am't bro't forward	$3,655,616 36
		Dean Sage Sermon Fund	75,000 00
		Frances Sampson Fine Arts Fund	600 00
		W C. Siedell Bk. Fund	1,000 00
		Sibley Col. End. Fund	50,000 00
		Surplus Fund	3,441 34
		Town Spencer Sch Fund	2,500 00
		H K. White Vet. Prize Fund	500 00
		Womans Guild Fund	6,557 41
		Woodford Medal Fund	2,500 00
		Income	5,349,485 68
		Inc. Class '08 Fd.	36 50
		Inc. Agr. Student Loan Fund	30 33
		Inc. Alumni End Fund	6 16
		Inc. Mrs. A. S. Barnes Pz. Fd.	128 30
		Inc. Boardman Sr. Law Schl. Fund	16 30
		Inc. Corson Browning Pz. Fund	8 31
		Inc. Class '86 Mem. Pz. Fd	91 67
		Inc. Class '94 Debate Fund	15 82
		Inc. Corson French Prize Fund	21 05
		Inc. Fuertes MedalPz. Fund	56 63
		Inc. Guilford Essay Pz. Fund	16 20
		Inc. Guiteau Student Loan Fd	4,153 97
		Inc Mary F. Hall Sch. Fund	454 70
		Inc. Loomis Lab'y Fund	333 96
Am't forwarded	$14,384,689 33	Am't forwarded	$9,152,570 69

Am't bro't forward	$14,384,689	33
Am't forwarded	$14,384,689	33

Am't bro't forward	$ 9,152,570	69
Inc. Luana L. Messenger Pz. Fund	203	40
Inc. Polish Student Loan Fd	6	61
Inc. J. M. Polk Prize Fund	74	67
Inc. Prof. Pension Fund	16,280	32
Inc. Frances Sampson Fine Arts Pz. Fund	29	58
Inc. W. C. Siedell Book Fund	69	00
Inc. Philo Sherman Bennet Fd	83	88
Inc. Town Spencer Sch. Y. W. Fund	71	00
Inc. H. K. White Vet'y Pz. Fd	32	89
Inc. Woodford Medal Fund	355	75
Inc. Womans Guild Fund	323	28
Civil Eng. Com'l Act	1,875	36
Agricultural Income	4,304	04
American Peony Association	200	00
Inc. Dean Sage S. Fund	1,425	00
Musical Entertainments	416	14
Publishing Studies	202	55
Sage Ath. Field Fund	27	40
Agr. Exp. Sta. Adams	2,856	51
Agr. Exp. Sta. Hatch	1,963	17
St. App. Prom. Agr	17,145	54
Agr. Exp. Sta. Inc	459	98
Am't forwarded	$9,200,976	76

A'mt bro't forward	$14,384,689	33	Am't bro't forward	$ 9,200,976	76
			State Income	6,996	84
			Sta. Coll. Forestry Inc.	8,983	90
			Sta. Vet'y Coll. Inc	4,370	39
			Sta. Vet'y Coll. Main	1,555	65
			Womans Student Loan Fund	7,068	28
			Bills payable	6,500	00
			Cornell Infirmary	19,023	65
			Medical	518	01
			Premium and Discount	149,079	84
			Profit & Loss foreclosure	31,123	74
			Western Lands	4,947,818	36
			Sundry Persons	256	30
			Sundry Accounts	417	61
	$14,384,689	33		$14,384,689	33

SCHEDULE V

STATE COLLEGE FORESTRY BALANCE SHEET, AUG. 1, 1909

Contingencies ..	$ 4,723 84	New York State	$50,000 00
Clerk	1,222 58		
Stationery......	2,129 08		
Lectures	1,825 00		
Salaries	36,274 96		
Lib. & Demonstrations	2,608 64		
Equipment	689 06		
Forest Nursery .	526 84		
	$50,000 00		$50,000 00

SCHEDULE VI

STATE COLLEGE FORESTRY LUMBERING ACCOUNT BALANCE SHEET, AUG. 1, 1909.

	Exp. Aug. 1, 1908 to Aug. 1, 1909	Balance Aug. 1, 1909		Receipts Aug. 1, 1908 to Aug. 1, 1909	Receipts to Aug. 1, 1909
Maintenance ..	$ 104 52	$ 17,084 03	N. Y. State		$ 60,000 00
Improvement		22,533 99	Maintenance ..		2,458 40
Equipment		4,457 33	Improvement ..		16,765 26
Building .		6,151 62	Equipment		1,182 73
Sur'y & Est'g ..		5,297 22	Building .		25
Cordwood		54,119 36	Sur'y and Est'g ..		298 20
Pulpwood		16,275 47	Cordwood		50,977 29
Logging .		86,870 76	Pulpwood		28,881 26
Tele'ph poles ..		511 31	Logging .		57,460 08
Ties and Posts ..		1,958 07	Telegraph Poles ..		1,099 40
Fire Fighting		580 47	Ties and Posts ..		2,280 50
			Tuition ..		2,660 00
			Interest .	328 85	796 88
Contr. R. R. Main Line ..		3,000 00	Rents....	250 00	2,571 02
		104 52			578 85
Income ..		159,994 04	Income ..		159,994 04
McDonald & Son..		18,114 37	McDonald & Son..		18,114 37
Am't forwarded..		$397,052 56	Am't forwarded..		$406,118 53

Am't bro't forward........		$397,052 56
Brook'n Cooperage Co .		94,234 16
Santa Clara Lumber Co		27,805 36
State Col. For. Bk Acc ...	8,983 90	
Due C. U. from State	180 31	8,803 59
		$527,895 67

Am't bro't forward........	$406,118 53
Brook'n Cooperage Co .	93,986 83
Santa Clara Lumber Co	27,790 31
	$527,895 67

Schedule VII

N Y. STATE VETERINARY COLLEGE BALANCE SHEET, JULY 31, 1909

State of New York		$498,308 64
Income of Veterinary College		55,174 63
Building and Equipment Expenditures ..	$150,000 00	
Fire Loss Expenditures	13,308 64	
Department Expenditures..............	70,734 59	
Expense..	313,514 00	
Experimental Work	279 76	
C. U. Income Unexpended	4,370 39	
C. U. Maintenance App'n Unexpended ...	1,555 65	
Due C. U. from State		279 76
	$553,763 03	$553,763 03

SCHEDULE VIII

CORNELL UNIVERSITY MEDICAL COLLEGE

TRIAL BALANCE, JULY 31, 1909

Tuition	$ 150 00	Registration	$ 80 00
Hospital Quiz	988 00	Tuition	16,945 00
Special Courses	430 00	First Year Laboratories	70 00
Breakage Deposits	1,249 37	Second Year Laboratories	1,435 00
Prizes (J. M. Polk Mem.)	500 00	Third Year Laboratories	2,450 00
Insurance	380 61	Fourth Year Laboratories	1,300 00
Advertising	1,139 70	Examinations(Final)	1,350 00
Adv. (Announcements)	4,163 58	Hospital Quiz	710 00
Expenses (Incidental)	204 68	Special Courses	1,025 00
Expenses (Traveling)	174 00	Breakage Deposits	1,368 35
Supplies (Janitor)	165 76	Interest	451 64
Supplies (Engineer)	2,014 13	Prizes (J. M. Polk Mem.)	500 00
Fuel	6,292 25	Donations	160,000 00
Lighting (Gas)	279 64	Dispensary Receipts	4,836 41
Water	1,522 90	Lighting (Gas)	104 67
Telephone	455 73	Telephone	247 90
Laundry	158 92	Repairs to Building	1 75
Ice	85 85	Salaries, Prof., Instrs	11 11
Repairs to Building	755 06	" Clerk and Staff	85 72
Furniture	83 02	Photography Dep't of	56 60
Alterations Med. Col. Building	15,766 75	Serum Manufacturing	25 00
Postage	62 00	Salaries, Serum Employees	2 50
Printing and Stationery	266 14	Loomis Laboratory	5,706 00
Uniforms	11 59	Balance Aug. 1, 1908: Bank $1,275 40 Dr. Polk, Dean 500 00	1,775 40
Alcohol	282 98		
Commencement Expenses	515 25		
Salaries, Prof. Instrs.	100,980 54		
" " Clerk and Staff	31,121 68		
Salaries, Sec'y and Asst	2,400 00		
Salaries, Chiefs of Clinics	2,288 90		
Supplies (Dispensary)	173 94		
Printing and Stat. (Disp.)	359 80		
Am't forwarded	$175,422 71	Am't forwarded	$200,538 05

Am't bro't forward..........	$175,422	71
Drugs and Med's (Disp.).........	4,150	40
Dermatology (Disp.)	3	40
Genito-Urinary (Disp.).........	62	15
Gynecology (Disp.)	15	63
Laryngology (Disp.)	16	10
Medicine (Disp.) ..	16	59
Neurology (Disp.) .	30	94
Ophthalmology (Disp.).........	50	18
Orthopedic Sur'y (Disp.).........	3	50
Otology (Disp.) ...	35	35
Pediatrics (Disp.) .		60
Surgery (Disp.) ...	55	07
Anatomy (Practical)	413	89
Chemistry	1,943	29
Chemistry Library	71	61
Clinical Pathology	1,282	61
Clinical " Library........	143	35
Laryngology	47	25
Materia Medica ...	664	77
Medicine.........	166	61
Neurology	48	60
Obstetrics	159	35
Operative Surgery	81	27
Orthopedic Surgery		60
Pathology	1,515	45
Photography	128	34
Pathology Library	866	64
Pathology Publications	410	53
Animals and Food .	714	70
Physiology	390	42
X-Ray	208	73
Serum Manufacturing	1,239	38
Salaries Serum Employees	2,105	00
Loomis Laboratory	1,518	38
Salaries, Loomis Employees	2,768	22
Materia Medica (Loomis)	405	20
Am't forwarded....	$197,156	81

Am't bro't forward.........	**$ 200,538**	**05**
Am't forwarded...	$200,538	05

Am't bro't forward		$197,156 81	Am't bro't forward	$200,538 05
Expr.. Pathology (Loomis)		1,443 15		
Animal Hospital		6 00		
Medical College Lab'y		214 08		
Salaries, M. C. L. Employees		600 00		
Fuel, Med. College Lab'y		600 00		
Cash				
Bank	$ 18 01			
Dr. Polk, Dean	500 00	518 01		
		$200,538 05		$200,538 05

SCHEDULE IX

SECURITIES—MUNICIPAL BONDS

NAME	ISSUED FOR	* WHEN DUE	RATE	COST	AMOUNT
Agnes City T'p, Lyon Co., Kan	R. R. Aid	1917	6	100	$ 20,000
Aurora T'p, Cloud Co., Kan	Refunding	1909–1916	5½	106	7,500
Beatrice, Nebraska	Water Wks.	1916	4	100	7,000
Beatrice, Nebr., Sch. Dist	Sch. House	1909–1916	6	104¼	8,000
Belleville T'p, Chaut. Co., Kan	Refunding	1910–1923	4½	100	11,000
Blue Rapids T'p, Marshall Co., Kan	Refunding	1908–1929	5	101½	11,500
Burlingame City	Funding	1919–1924	5	4.60b	6,000
Burr Oak T'p, Jewell Co., Kan	R. R. Aid	1910	8	112¾	5,000
Caldwell City, Sumner Co., Kan	Water Wks.	1920	4½	100	1,600
Center T'p, Dickinson Co., Kan	Refunding	1905–1920	5	101	8,000
Centerville T'p, Linn Co., Kan	Refunding	1909–1920	4¾	100	12,000
Chase Co., Kan	R. R. Aid	1922	6	104.25	20,000
Chase Co Kan	R. R. Aid	1922	6	113½	45,000
Chautaqua Co., Kan	Refunding	1910	5	4½b	5,000
City of Fairbury, Nebr	R. R. Aid	1910	6	97	5,000
Clarks Creek T'p, Morris Co., Kan	Refunding	1910–1919	5	100	4,000
Clay Co., Kan	Refunding	1914–1929	5	4.40b	8,000
Crook Co., Wyo	C. H. & J.	1910–1911	6	100	4,000
Crow Wing Co., Minn	R. R. Aid	1912	6	115.53	25,000
Crow Wing Co., Minn	R. R. Aid	1912	6	100	30,000
Delight T'p, Custer Co., Nebr.	R. R. Aid	1910	5	102	5,000
Diamond Valley T'p, Morris Co., Kan	Refunding	1910–1919	5	101	10,000
Eden T'p, Sumner Co., Kan	Refunding	1909–1914	4¾	4.60b	8,000
Edwards Co., Kan	R. R. Aid	1916	6	99	16,000
Elk T'p, Cloud Co., Kan	Refunding	1911–1921	4½	100	9,500
Elk T'p, Republic Co., Kan	Refunding	1910–1914	5	4½b	3,000

Amount carried forward $295,100

Amount brought forward $295,100

Escambia Co., Fla	Armory	1909–1915	6	108.25	5,500
Eureka T'p, Barton Co., Kan	R. R. Aid	1916	6	112.39	12,000
Fairmont, Nebr	Ref. Water	1912	5	4½b	7,500
Fargo North Dakota	Refunding	1913	6	105½	20,000
Glynn Co., Ga	Refunding	1925	5	100	4,000
Graham Co., Kan	Refunding	1918	6	100	10,000
Grant T'p, Jewell Co., Kan	Refunding	1911–1915	5	4½b	5,000
Grant T'p, Reno Co., Kan	R. R. Aid	1917	6	4.80b	4,000
Great Bend T'p, Barton Co., Kan	R. R. Aid	1917	6	112.58	7,000
Green Garden T'p, Ellsworth Co., Kan	Refunding	1910–1919	5	4⅝b	10,000
Henderson Co., N. C	Refunding	1925	6	107½	20,000
Hickory T'p, Butler Co., Kan	R. R. Aid	1908–1912	4¾	100	2,000
Highland T'p, Morris Co., Kan	Refunding	1910–1915	5	4⅝b	4,000
Houston Heights Municipality	Sch. Bldg.	1933	5	4.65b	10,000
Iola T'p, Allen Co., Kan	Refunding	1910–1918	4½	100	6,500
Kiowa Co., Kan. K. P. & W	R. R. Aid	1917	5	100	11,000
Kiowa Co., Kan. . . . "	R. R. Aid	1917	5	98	40,000
Lane T'p, Greenwood Co., Kan	Refunding	1909–1924	5	4⅝b	16,000
Liberty T'p, Dickinson Co., Kan	Refunding	1907–1920	5	4⅝b	7,000
Lincoln T'p, Cloud Co., Kan	Refunding	1909–1920	4½	100	15,000
Lost Springs T'p, Marion Co. Kan	Refunding	1905–1914	5	100	10,000
Luverne Ind. Sch. Dist. Minn	Sch. House	1910	6	108	20,000
Lyon T'p, Dickinson Co., Kan	Refunding	1911–1921	5	101	8,000
Marquette City, McPherson Co., Kan	Refunding	1910–1925	5	4.60b	7,500
Mound City, T'p, Linn Co., Kan	Refunding	1910–1930	5	4½b	6,000
Mound T'p, McPherson Co., Kan	R. R. Aid	1916	6	100	14,000
Neosho T'p, Coffey Co., Kan	Refunding	1910–1912	5	4½b	3,000
Ness Co., Kan	Refunding	1910–1924	5	103¼	67,000

Amount carried forward $647,100

FOREIGN GOVERNMENT BONDS

NAME	WHEN DUE	RATE	COST	AMOUNT	
Amount brought forward					$1,948,476 12
Argentine Republic, Internal		5	99	$ 9,730	
Imperial Japanese Government, 1st 4½'s	1910–1925	4½	88	24,350	
" " "	1910–1925	4½	92	48,700	
Imperial Japanese Government, 2d 4½'s	1910–1925	4½	88	73,050	
Republic of Cuba, Exterior Loan	1910–1944	5	100½	50,000	
" " " "	1910–1944	5	105½	50,000	
San Paulo, Brazil, Treasury Bonds		5	6½b	48,600	
U. S. of Mexico, Loan 1904	1954	4	93½	49,000	
" " Ext. Loan	1945	5	96½	90,210	443,640 00
					$2,392,116 12

RAILROAD BONDS

Amount brought forward					$2,392,116 12
Atchison, Topeka & Santa Fe Ry., 1st Mtg	1958	4	4½b	$ 50,000	
Atlanta, Birmingham & Atlantic, Rec. Certificate		5	99	25,000	
Atlantic City R. R. Co., Gold Mtg	1919	5	112	10,000	
Baltimore & Ohio R. R. Co., Prior Lien	1925	3½	95½	4,000	
Baltimore & Ohio R. R. Co., 1st Mtg	1948	4	103	500	
Canada Southern Ry. Co., 1st Mtg	1913	6	100	23,000	
Carolina, Clinchfield & Ohio Ry., 1st Mtg	1938	5	95	25,000	
Central Branch Ry. Co., 1st Mtg	1919	4	95¼	11,000	
Chesa. & Ohio Ry 1st Con. Mtg	1939	5	118½	25,000	
Chicago Great Western R. R. Co., Debent're		4	93¾	60,000	
" " " " "		4	92½	40,000	
Amounts carried forward				**$273,500 00**	**$2,392,116 12**

RAILROAD BONDS—CONTINUED

	Amounts brought forward			$273,500	$2,392,116 12
Chicago, Rock Island & Pac. Ry. Co., 1st and Refund	1934	4	88⅞	25,000	
" " " " " " " " " "	1934	4	89½	25,000	
Chicago Rock Island & Pacific Ry. Co., 1st Mtg	1917	6	121½	25,000	
Cin. Ham. & Day. Ry. Co., Col. T'st	1908	4½	97⅝	25,000	
Colorado Utah Con. Co., Guar. Col. Trust	1911	6	100	25,000	
Delaware & Hudson Co., Conv. Bonds	1916	4	95	25,000	
" " " " "	1916	4	100	2,000	
E. Tennessee, Virginia & Georgia Ry., Con. Mtg	1956	5	120¼	15,000	
Galveston Har'g & San An., M. & P. Ext	1931	5	108	30,000	
" " " "	1931	5	601	10,000	
" " " "	1931	5	111⅜	10,000	
Ga. Car. & North. Ry., 1st Mtg	1929	5	109½	5,000	
Knoxville & Ohio Ry. Co., 1st Mtg	1925	6	122½	10,000	
Lehigh Valley Ry. Co., 1st Mtg	1940	4½	108	10,000	
Long Island R. R. Co., 1st Con. Mtg	1931	5	117½	10,000	
Macon Dub. & Sav. Ry. Co., 1st Mtg	1947	5	97	25,000	
Michigan Central Rd. Co., Deb. of 1909	1929	4	4.40b	25,000	
Mo. Kansas & Eastern Ry., 1st Mtg	1942	5	105	25,000	
Missouri, Kansas & Oklahoma R. R. Co., 1st Mtg	1942	5	101	10,000	
" " " " "	1942	5	107	15,000	
Missouri, Kansas & Texas Ry. Co., 1st Mtg	1990	4	100	10,000	
Missouri, Kansas & Texas of Texas, 1st Mtg	1942	5	101	25,000	
Missouri, Pacific Ry. Co., Cons'l 1st Mtg	1920	6	5%b	10,000	
	Amounts carried forward			$670,500	$2,392,116 12

RAILROAD BONDS—CONTINUED

	Amounts brought forward			$670,500	$2,392,116 12
N. Y. Chicago & St. Louis Rd. Co., Deb. of 1906	1931	4	4.47b	25,000	
N. Y. New Haven & Hartford, Conv. Deb	1948	6	100	6,600	
N. Y., New Haven & Hartford R R. Co., 3 yr. note	1910	5	100	25,000	
N. Y. Ont. & West. Ry., Refunding	1992	4	100	10,000	
" " " " "	1992	4	102⅞	10,000	
N. Pac. & Gt. Nor. Ry. C. B. &Q. Col	1921	4	96	25,000	
" " " "	1921	4	96½	50,000	
" " " "	1921	4	98¼	25,000	
Ohio River R. R. Co., Gen. Mtg	1937	5	100	86,000	
Oregon Rd & Nav. Co., Con. Mtg	1946	4	102¾	5,000	
Pennsylvania Rd. Co., Conv	1915	3½	89⅝	25,000	
" " "	1915	3½	90¼	25,000	
Richmond & Peters'g Ry. Co., Con. Mtg	1940	4½	100	10,000	
Seaboard Air Line, Rec. Cer. Ser. C	1912	5	99	25,000	
Scoita Valley & New England, 1st Mtg	1989	4	102⅛	10,000	
So. Indiana Ry., Co., 1st Mtg	1951	4	94	10,000	
So. Pacific Co., Conv., Bonds		4	96	9,000	
St. Louis, Iron Mt. & Southern R. & G. Div., 1st Mtg	1933	4	5%b	25,000	
St. Louis, Iron Mt. & Southern, Gen. Mtg	1931	5	101¼	35,000	
" " " "	1931	5	103	5,000	
St. Louis, Iron Mt. & Southern, Con. Mtg	1931	5	117⅜	10,000	
St. Louis & San Francisco Rd. Co., 7 yr. note	1912	4½	97	25,000	
St. P. Min. & Man. Ry., Mont. Ext	1937	4	100	1,000	
Tol. & Ohio Central Ry. Co., Gen. Mtg	1935	5	96	20,000	
Union Pacific Rd. Co., 1st and Refunding	2008	4	4.15b	50,000	
Union Pacific Rd. Co., Conv	1927	4	86¾	20,000	
Vera Cruz & Pacific Ry. Co., 1st Mtg	1934	4½	95⅝	50,000	
Wabash Ry. Co., 1st Mtg	1939	5	118	14,000	
West Virginia & Pittsburg Ry. Co., 1st Mtg	1990	4	100	10,000	
Wheeling & Lake Erie. 1st Mtg	1949	4	89½	15,000	$1,332,100 00
					$3,724,216 12

EQUIPMENT NOTES

NAME	WHEN DUE	RATE	COST	AMOUNT	
Amount brought forward					$3,724,216 12
Chicago, Rock Island & Pacific Ry. Co	1917	4½	5½b	20,000	
Cincinnati, Hamilton & Dayton R. R.	1909	4½	99	20,000	
Colorado & Southern Ry. Co	1914	5	5⅞b	25,000	
Delaware & Hudson Co	1922	4½	94¾	50,000	
Evansville & Terre Haute, Series C	1912	4½	97½	25,000	
Iron Mountain Car Trust	1912	5	5¼b	25,000	
New York Central Lines	1917	5	98¼	25,000	
Pere Marqette R. R	1909	4½	99¾	25,000	
" " "	1913	6	5.40b	20,000	
Seaboard Air Line Ry	1911–1913	4½	4⅞b	50,000	
" " "	1912	5	99⅜	26,000	
" " " Series H	1914	5	5⅞b	24,000	
St. Louis & San Francisco, Series G	1909	4½	5¼b	25,000	
Wabash Rd. Co., Series C	1913	4½	6%b	5,000	
" " "	1914	4½	6%b	25,000	$ 390,000 00
				Amount carried forward ...	$4,114,216 12

TRACTION BONDS

NAME	WHEN DUE	RATE	COST	AMOUNT	
Amount brought forward				$	$4,114,216 12
Balt. Spar Pt. & Chesa. Ry., 1st Mtg	1953	4½	94½	15,000	
Brook. Un. El. R. R. Co., 1st Mtg.	1950	5	101¾	25,000	
" " " "	1950	5	106½	25,000	
Calumet & So. Chicago, 1st Mtg	1927	5	99½	20,000	
Cayuga Lake Elec. Ry. Co., 1st Mtg	1922	6	103	2,000	
Cen. El. Ry. Co., of Kansas City, Mtg	1914	5	99¾	18,000	
Chicago Railways Co., 1st Mtg	1927	5	99⅞	50,000	
Cleveland Railway Co., 1st Mtg	1912	5	98¼	25,000	
Davenport & Rock Island Ry., 1st Mtg	1911	6	102	50,000	
" " " "	1911	6	102⅜	8,000	
Des Moines City Ry., Rfdg. Mtg	1921	5	5½b	10,000	
" " " "	1921	5	100	15,000	
Detroit & Northwestern Ry. Co., 1st Mtg	1921	4½	97½	15,000	
Detroit United Ry., Col. Trust	1910	5	95	25,000	
Detroit United Ry., 1st Cons'l	1932	4½	93½	50,000	
Hudson Companies, Col. Note	1911	6	99¾	25,000	
Hudson & Man. Rd., Car Trust, Ser. A	1913	5	5½b	10,000	
" " " "	1914	5	97½	10,000	
Indianapolis St. Ry. Co., Gen. Mtg.	1933	4	87	25,000	
Interborough Rap. Tran. Co., Conv. Notes	1911	6	99	50,000	
Ithaca St.Ry., 1st Mtg.	1922	6	103	30,000	
" " "	1922	6	102	5,000	
Ithaca St. Ry., Co., 2d Mtg	1922	6	103	25,000	
" " "	1922	6	6½b	3,000	
" " "	1922	6	102	4,000	
Kansas City Elev. Co., Gen. Mtg	1922	4	90	25,000	
	Amounts carried forward			$565,000	$4,114,216 12

Amounts brought forward				$565,000	$4,114,216 12
Kansas City Ry. & Lt., 1st Rfdg	1913	5	5⅜b	25,000	
Metropolitan St. Ry. Co., Gen. Mtg	1997	5	109	25,000	
" " "	1997	5	112⅜	50,000	
Muscatine Cit. Ry. & Lt. Co., 1st	1917	5	97½	6,500	
" " " "	1917	5	5.45b	3,500	
Nassau Elec. R. R. Co., Cons. Mtg	1951	4	87¾	25,000	
N. Y. & Jersey Rd. Co., 1st Mtg	1932	5	100	10,000	
" " " " "	1932	5	101	25,000	
No. Ohio Traction Co., Cons. Mtg	1919	5	5¼b	25,000	
No. Texas Traction Co., 1st Mtg	1933	5	98	15,000	
" " " "	1933	5	99	10,000	
Rochester Ry. Co., GoldMtg	1930	5	111	25,000	
" " "	1930	5	111½	25,000	
" " "	1930	5	110	25,000	
Saginaw Valley Tract. Co., 1st Mtg	1920	5	102	50,000	
Sciota Valley Tract Co., 1st Mtg	1923	5	99	25,000	
Seattle Electric Co., 1st Mtg	1939	5	5.20b	25,000	
Steinway Ry. Co., 1st Mtg	1922	6	114	15,000	
Toledo Tract. Co., Cons. 1st Mtg	1912	6	97½	40,000	
Toledo Rys. & Lt. Co., Con. 1st Mtg	1909	4	92	4,000	
" " "	1909	4	94	10,000	
West Side R. R. Co. of Elmira, 1st Mtg	1914	5	101	25,000	$1,054,000 00
Amount carried forward					$5,168,216 12

LIGHT AND POWER BONDS

NAME	WHEN DUE	RATE	COST	AMOUNT	
Amount brought forward				$	$5,168,216 12
Baltimore Un. El. L. & P. Co., Con. 1st Mtg	1929	4½	4.90b	25,000	
Butte Elec. & Po. Co., 1st Mtg.	1931	5	6%b	6,000	
" " "	1951	5	90	34,000	
" " "	1951	5	6%b	15,000	
California Gas & El Co., Unif. & Rfdg	1937	5	95½	25,000	
Conn. Riv. Po. Co. of N. H., 1st Mtg	1937	5	92	25,000	
Detroit City Gas Co., Gold Mtg	1923	5	101	44,000	
Dominion Po. & Tran. Co., Gold Bd	1925–1927	5	95	25,000	
Grand Rapids-Musk. Po. Co., 1st Mtg	1931	5	99	25,000	
Green Bay Gas & El. Co., 1st & Rfg.	1925–1935	5	100	9,000	
Hornell Gas Lt.,Co., 1st Mtg.	1910–1924	5	95	25,000	
" " " "	1917–1920	5	100	4,000	
Ithaca Gas Lt. Co., 1st Mtg	1931	5	100	100,000	
Lacrosse Water Po. Co., 1st Mtg	1931	5	5⅝b	25,000	
Lincoln Gas Co., 1st Mtg	1911	6	98½	50,000	
" " "	1911	6	107	5,000	
Nassau Lt. & Po. Co., 1st Mtg	1927	5	5.45b	25,000	
Newburg Lt. Ht. & Po. Co., 1st Mtg	1921	5	100	25,000	
N. Y. Gas El. Ht. Po. Co. 1st Mtg	1948	5	105	25,000	
" " " " "	1948	5	108	50,000	
" " " " "	1948	5	110½	25,000	
Niagara Falls Po. Co., 1st Mtg	1932	5	99½	10,000	
Niagara Lock. & Ont. Po. Co., 1st Mtg	1954	5	95	100,000	
Ontario Po. Co. of Niagara Falls, 1st Mtg	1943	5	95	100,000	
Pacific Lt. & Po. Co., 1st Mtg	1942	5	90	25,000	
Portland Gen. El. Co., 1st Mtg	1915–1935	5	102½	25,000	
	Amounts carried forward			**$852,000**	**$5,168,216 12**

	Amounts brought forward			$852,000	$5,168,216 12
Potomac El. Po. Co., Cons. Mtg	1936	5	100	25,000	
San Diego Con. Gas & El. Co., 1st Mtg	1939	5	97½	25,000	
Shawinigan Wa. & Po. Co., Con. Mtg	1934	5	90	50,000	
St. Louis Un. El. Lt. & Po. Co., 1st Mtg	1932	5	100	25,000	
Utah Lt. & Po. Co., Prior Lien	1905–1930	5	100	15,000	
Washington Wat. Po. Co., 1st Mtg	1939	5	102¾	25,000	
Watertown Lt. & Po. Co., 1st Mtg	1959	5	96½	25,000	$1,042,000.00
				Amount carried forward	$6,210,216 12

MISCELLANEOUS BONDS

NAME	WHEN DUE	RATE	COST	AMOUNT	
Amount brought forward				$	$6,210,216 12
American Agri. Chem. Co., 1st Mtg	1928	5	5½b	25,000	
American Cigar Co., Series A Notes	1911	4	5%b	25,000	
American Tobacco Co., Bond	1944	6	112	25,000	
Buffalo & Sus. Iron Co., 1st Mtg	1932	5	99	20,000	
Central Coal & Coke Co., Gen. Con. Mtg	1919	6	100	20,000	
Central Leather Co., 1st Lien	1925	5	89	20,000	
" " " "	1925	5	99½	30,000	
" " " "	1925	5	99¼	50,000	
Corn Products Refining Co., 1st Mtg	1934	5	98	20,000	
Cudahy Packing Co., 1st Mtg	1924	5	98½	25,000	
Delaware River Ferry Co., Sinking Fund	1921	5	104	8,000	
Great Southern Lumber Co., 1st Mtg	1912–1915	6	100	10,000	
Leav. City & Ft. Leav. Wat. Co., Water Works	1912	6	100	30,000	
Montreal Loc. & Mac. Co., 1st Mtg	1924	4	5%b	25,000	
New York Dock Co., 1st Mtg	1951	4		27,500	
Republic Ir. & St. Co., 1st & Col. Tr	1934	5	90	20,000	
" " " "	1934	5	98	10,000	
	Amounts carried forward			$390,500	$6,210,216 12

MISCELLANEOUS BONDS—CONTINUED

	Amounts brought forward			$390,500	$6,210,216 12
Richmond Loc. & Mac. Wks., Con. Mg	1929	6	115	24,000	
Scarsdale Co., 1st Mtg	1919	6	95	25,000	
Trow Dir. Pg. & Bdg. Co., 1st Mtg	1910–1914	5	5½b	130,000	
United Fruit Co., Sinking Fund	1923	4½	95¾	25,000	
U. S. Rubber Co., Col. Tr. 10 year note	1919	6	102¼	25,000	
Va. Caro. Chemical Co., 1st Mtg	1923	5	5.57b	25,000	$644,500 00
					$6,854,716 12

STOCKS

NAME	WHEN DUE	RATE	COST	AMOUNT	
Amount brought forward				$	$6,854,716 12
American Lt. & Traction Co		6	100	25,000	
American Tobacco Co., Preferred		6	101¼	10,000	
Baltimore & Ohio R. R. Co., Preferred		4	94	300	
1st Nat'l Bank of Ithaca		12	163.50	10,000	
" " "		12	125	40,000	
Great Northern Ry. Co		7	116	10,000	
Knickerbocker Trust Co			300	5,000	
National Bank of Commerce		8	173	23,000	
N. Y. Central & Hudson River R. R. Co		5	100	10,000	
" " "		5	101	10,000	
N. Y. Dock Co., Pfd		4		27,500	
Reading Co.		4	80	20,000	
" "		4	100	30,000	
Wells Fargo & Co		10	235	10,000	
Wheeling & Lake Erie, 1st Preferred			44	3,000	
" " 2d Preferred			24	1,500	235,300 00
				Amount carried forward	$7,090,016 12

Amount brought forward		$7,090,016 12

MORTGAGES

435 first mortgage on improved real estate, mostly in Southwestern Iowa, Southeastern Nebraska, Northwestern Missouri, Northeastern Kansas, and the Red River Valley, bearing, with few exceptions, 5% interest and running from one to ten years, as per complete list in manuscript report		1,079,440 00
Loans on collateral		144,240 00
Special Deposits.		
Equitable Trust Co., @ 3%	21,180 70	
Mercantile Trust Co., @ 3%	22,465 30	
Metropolitan Trust Co., @ 3½%	16,573 88	
Morton Trust Co., @ 2%	1,746 30	
Union Trust Co. @ 2½%	1,842 08	
United States Trust Co., @ 2½%	1,524 49	
Ithaca Trust Co., @ 3%	25,942 52	
Columbia Trust Co., @ 3%	20,983 00	112,258 27
Real Estate.		
Sage Block, Ithaca, 5%	31,000 00	
Campus Cottage Account 5½%	57,460 86	
Foreclosure Property 8%	15,945 65	104,406 51
Land Contracts.		
Western Land Contracts Schedule XV	91,804 77	
Warren States Contract 6%	450 00	92,254 77
		$8,622,615 67
Advances.		
Goldwin Smith Hall	34,643 80	
Farm Land Purchases	29,773 49	
Central Ave. Steam Mains	1,463 86	
Sage College Repairs	21,178 30	
Summer Repairs	5,794 30	92,853 75
Ledger Balances.		
Departments	701 12	
Bennett Mortgages	1,860 00	
Expenses	6,738 24	
Sundry Persons	3,871 59	
Lewis Investment Co., Suit	2,836 11	
Double Tenant House	1,500 00	
Amounts carried forward	$17,507 06	$8,715,469 42

Amounts brought forward			$17,507 06	$8,715,469 42
Less amounts due				
Bills payable		$ 6,500 00		
Bennett Book Fund		2,060 90		
Sundry accounts		417 61		
Sundry persons		256 30	9,234 81	8,272 25
Cash in bank			$59,855 86	
Due State from C. U.				
$150,000.00 App'n for 1908–9. Maintenance State College of Agriculture		$17,145 54		
Income State College of Agriculture		6,996 84		
Agricultural Income		4,304 04		
Income State College of Forestry		8,983 90		
$30,000 App'n for Maintenance, 1908–9 State Vet'y College		1,555 65		
Income State Vet'y College		4,370 39		
		$43,356 36		
Due C. U. from State:				
App'n for Equipment	$5,665 45			
App'n for Extension etc. 1908-9	5,844 18			
App'n for Extension etc. 1909–10	1,407 18			
Forestry Lumbering account	180 31			
App'n for Vet'y research	279 76	13,376 88	29,979 48	29,876 38
				$8,753,618 05

SCHEDULE X

FORECLOSURE PROPERTIES

	Amount of C. U. Claim	Income Received.	Taxes and Ex. Paid	Net Income.	Deficit
W. G. Clark	$ 2,320 65	$	$ 28 32	$	$28 32
*S. H. Lamport..	725 00	26 12	7 50	18 62	
*J. H. Catlin	12,900 00	1,488 48	158 15	1,330 33	
	$15,945 65	$1,514 60	$193 97	$1,348 95	$28 32
Less Deficit				28 32	
Net Income				$1,320 63	
Profit on Foreclosure property sold ..	31,123 74				
Credit Balance...	$15,178 09				

*The income from these properties was credited to Income Productive Funds, as they now stand on our books at a sum which should be readily realized from their sale.

SCHEDULE XI

SUSPENSE ACCOUNT

Lots in Topeka, Kansas	$1,160 00
New York Dock Co. Stock	2,500 00
LaCrosse Water Power Co. Stock	1,250 00
Connecticut River Power Co. Stock	100 00
	$5,010 00

SUMMARY OF INTEREST RATES

	Aug. 1, 1908	Aug. 1, 1909	Increase	Decrease
Securities bearing				
2 % interest or dividend	$ 1,098 94	$ 1,746 30	$ 647 36	$
2½ " " " "	1,430 35	3,366 57	1,936 22	
3 " " " "	18,348 55	90,571 52	72,222 97	
3½ " " " "	60,097 06	70,573 88	10,476 82	
4 " " " "	915,800 00	873,800 00		42,000 00
4½ " " " "	743,700 00	714,700 00		29,000 00
4¾ " " " "	58,000 00	48,500 00		9,500 00
5 " " " "	4,961,413 78	5,263,579 61	302,165 83	
5¼ " " " "	32,000 00	18,000 00		14,000 00
5½ " " " "	259,872 72	171,862 72		88,010 00
6 " " " "	1,151,963 68	1,251,415 67	99,451 99	
7 " " " "	72,650 00	30,827 24		41,822 76
7½ " " " "	31,000 00			31,000 00
8 " " " "	101,624 52	43,945 65		57,678 87
10 " " " "	10,000 00	10,000 00		
12 " " " "	50,000 00	50,000 00		
Stock paying no dividend	9,500 00	9,500 00		
Cash	5,062 38	29,876 38	24,814 00	
	$8,483,570 98	$8,682,265 54	$511,706 19	$313,011 63

The average rate on the above is 5.02 per cent. The rate of interest upon invested funds, including cash, actually received during the past year averaged 4.93 per cent. This rate was credited on special funds, the five per cent for the surplus or insurance account being deducted only from general university funds on which the rate credited was 4.76 per cent.

	$8,682,265 54
Advances on which no interest is allowed	66,011 14
Ledger balance	5,341 37
	$8,753,618 05

CLASSIFICATIONS OF INVESTMENTS

		Aug. 1, 1908.		*Aug. 1, 1909.*
Municipal bonds	.165%	$1,419,400 00	.145%	$1,259,900 00
State of New York scrip	.079	688,576 12	.079	688,576 12
Foreign Government Bonds	.045	386,280 00	.050	443,640 00
National Bank Stock	.008	73,000 00	.009	78,000 00
Steam Railroad Bonds	.164	1,414,100 00	.153	1,332,100 00
Steam Railroad Equipment notes	.047	405,000 00	.044	390,000 00
Traction Bonds	.090	784,500 00	.121	1,054,000 00
Light & Power Co. Bonds	.094	807,000 00	.120	1,042,000 00
Miscellaneous Corporation Bonds	.061	524,500 00	.072	644,500 00
Stock other than National Bank	.029	253,100 00	.018	157,300 00
Loans on Collateral	.019	164,240 00	.017	144,240 00
Real Estate Mortgages	.154	1,324,217 66	.123	1,079 440 00
Land Contracts	.012	103,525 54	.010	92,254 77
Real Estate	.012	104,085 38	.012	104,406 51
Special Deposits	.003	26,983 90	.013	112,258 27
Advances and Ledger Balances	.017	144,799 33	.011	101,126 00
Cash	.001	5,062 38	.003	29,876 38
	1.000%	$8,628,370 31	1.000%	$8,753,618 05

Schedule XIII

CHANGES IN INVESTMENTS SINCE AUGUST 1, 1908

Securities on hand Aug. 1, 1908, as per Treasurer's Report		$8,628,370 31
Add purchased through the year.		
CORPORATION BONDS, NOTES AND STOCKS		
American Agr. Chemical Co., 1st Mtg. 5% due 1928, @ 94½, 5½ basis	25,000 00	
American Light & Traction Co., 6% pfd. stock at par	25,000 00	
American Tobacco Co., 6% bonds, due 1944 @ 112, 5¼ basis	25,000 00	
American Tobacco Co., 6% pfd. stock @ 101¼	10,000 00	
Argentine Republic Internal 5% loan @ 99	9,730 00	
Atchison, Topeka & Sante Fe Trans-cont'l Short Line, 1st 4% Mtg., due 1958, @ 94½, 4¼ basis	50,000 00	
Atlanta, Birmingham & Atlantic 5% Receivers' certificates @ 99	25,000 00	
Buffalo & Susquehanna Iron Co., 1st 5% Mtg., due 1932 @ 99 and Int	20,000 00	
California Gas & Elec. Co., Unifying and Refunding 5% Mtg., due 1937, @ 95½, 5.30 basis	25,000 00	
Calumet & South Chicago 1st 5% Mtg., due 1927, @ 99½	20,000 00	
Carolina, Clinchfield & Ohio Ry. 1st Mtg., 5% due 1938, @ 95, 5.35 basis	25,000 00	
Central Electric Ry. of Kansas City 5% due 1914, @ 99¾	18,000 00	
Citizens' Ry. & Light Co., of Muscatine, 1st Mtg., 5% Bonds, due 1917, @ 97, 5.45 basis	3,500 00	
Cleveland Ry. Co. 1st 5% Mtg., due 1912 @ 98¼, 5⅝ basis	25,000 00	
Colorado-Utah Construction Co., 6% Collateral Trust Note, due 1911, @ par	25,000 00	
Connecticut River Power Co., 1st. 5% Mtg., due 1937, @ 92, 5.55 basis	25,000 00	
Corn Products Refining Co., 1st 5% Mtg. due 1934, @ 98, 5.15 basis	20,000 00	
Cudahy Packing Co., 1st 5% Mtg., due 1924 @ 98½, 5.15 basis	25,000 00	
Delaware & Hudson Co., Conv. 4%. Debt., due 1916, @ par	2,000 00	
Des Moines City Ry. Co., 5% Rfg. Mtg., due 1921, @ 96, 5½ basis	10,000 00	
Amounts carried forward	**$413,230 00**	**$8,628,370 31**

Amounts brought forward	$413,230 00	$8,628,370 31
Grand Rapids-Muskegon Power Co., 1st 5% Mtg., due 1931, @ 99	25,000 00	
Great Southern Lumber Co., 1st Mtg., 6% Bonds, due 1912–15, @ par	10,000 00	
Hudson Companies 6% Collateral note, due 1911 @ 99¾	25,000 00	
Hudson & Manhattan Rd. Co., 5% Car Trust, due 1913, @ 5½ basis	10,000 00	
Hudson & Manhattan Rd. Co., 5% Car Trust, series A, due 1914, @ 97½ 5½ basis	10,000 00	
Ithaca St. Ry. Co., 2nd Mtg., 6% Bonds due 1922, @ 6½ basis	3,000 00	
Kansas City Elevated Co., gen'l 4% Mtg., due 1922 @ 90, 5% basis	25,000 00	
Kansas City Railway & Light Co., 1st Rfdg. 5% Mtg., due 1913, @ 5⅜ basis	25,000 00	
Lacrosse Water Power Co., 1st Mtg., 5% Bonds, due 1931, @ 92, 5⅝ basis	25,000 00	
Michigan Central Rd. Co., 4% Debt., due 1929, @ 94¾, 4.40 basis	25,000 00	
Newburg Lt. Heat & Power Co., 1st 5% Mtg., due 1921, @ par	25,000 00	
New York, Chicago & St. Louis 4% Debt., due 1931 @ 93½, 4.47 basis	25,000 00	
New York & Jersey, 1st 5% Mtg., due 1932, @ 100	10,000 00	
Niagara Falls Power Co., 1st 5% Mtg., due 1932 @ 99½ and int	10,000 00	
Northern Ohio Traction Co., 1st Consol. 5% Mtg., due 1919 @ 5¼ basis	25,000 00	
Northern Texas Traction Co., 1st 5% Mtg., due 1933, @ 99	10,000 00	
Pere Marquette R. R. Co., 6% Equipment Notes, due 1913, @ 5.40 basis	20,000 00	
Potomac Electric Power Co., Consol. 5% Mtg., due 1936 @ 100 and Int	25,000 00	
St. Louis, Iron Mt. & Southern, River & Gulf Div., 1st 4% Mtg., due 1933, @ 87 flat, 5% basis	25,000 00	
San Diego Cons'l Gas & Elec. Co., 1st 5% Mtg., due 1939 @ 97½, 5.15 basis	25,000 00	
San Paulo, Brazil, Treasury, 5% Bonds of 1908, at 6% basis	48,600 00	
Scarsdale Company 1st 6% Mtg., due 1919 @ 95, 6.70 basis	25,000 00	
Sciota Valley Traction Co., 1st Mtg., 5% 1923, @ 99	25,000 00	
Amounts carried forward	$894,830 00	$8,628,370 31

Amounts brought forward	$894,830 00	$8,628,370 31
Seaboard Air Line Receiver's Certificate, Series C, 5% due 1912, @ 99	25,000 00	
Seattle Electric Co., Seattle Everett 1st 5% Mtg., due 1939, @ 5.20 basis	25,000 00	
Southern Pacific Conv. 4% Bonds, due 1929, @ 96, 4.30 basis	9,000 00	
United Fruit Co. Sinking Fd. 4½% Deb., due 1923, @ 95¾, 4.90 basis	25,000 00	
United States Rubber Co. Collateral Trust 10-year 6% Notes @ 102¼	25,000 00	
Union Pacific R. R. Co., 1st & Rfg. 4% Mtg., due 2008 @ 4.15 basis	50,000 00	
Virginia-Carolina Chemical Co., 1st 5% Mtg., due 1923 @ 5.57 basis	25,000 00	
Watertown Light & Power Co., 1st 5% Mtg., due 1959, @ 96½. 5.20 basis	25,000 00	
Washington Water Power Co., 1st Rfg. 5% Mtg., due 1939, @ 102¾, 4.85 basis	25,000 00	
	$1,128,830 00	
Sundry Bonds & Mortgages	56,500 00	
Western Land Contracts-Sales during year, Schedule XX	4,450 00	
Increase in Special Deposits	85,274 37	
Increase in Campus Cottage Account.- Gardner's Cottage ..... $1,000 00 Dairyman's Cottage 2,000 00	3,000 00	
Increase in cash items	24,814 00	$1,302 868 37
		$9,931,238 68
Deduct, paid or sold during the year:		
Allen School District No. 58 Kan	$ 500 00	
American Locomotive Co	25,000 00	
Aurora Twp., Cloud Co., Kan	1,500 00	
Banner Twp., Rush Co, Kan. 6% Bonds sold at 4 20 basis	14,000 00	
Beatrice School District, Neb	1,000 00	
Blue Rapids Twp., Marshall Co., Kan	1,500 00	
Boone Co., Neb. School District 36	500 00	
Buffalo Co., Neb. School District 69	500 00	
C. B. & Q. General 4% due 1958, sold at 100⅜	50,000 00	
Center Twp., Rush Co., Kan. 6% due 1916 sold @ 111½, 4¼ basis	4,000 00	
Center Twp., Rush Co., Kan. 6% bonds sold at 4.20 basis	11,000 00	
Central R. R. of New Jersey Gen'l 5% due 1987 sold @ 128½, 3⅞ basis	3,000 00	
Chesapeake & Ohio, 1st 5%, due 1939, sold @ 115, 4.10 basis	10,000 00	
Amounts carried forward	$122,500 00	$9,931 238 68

Amounts brought forward	$122,500 00	$9,931,238 68
Chicago & Alton R. R. Co., 5% Notes	25,000 00	
Chicago, Milwaukee & St. Paul Terminal 5% due 1914, sold @ 104¾, 3.90 basis	10,000 00	
Chicago & Northwestern Ry. Co. Con. 7% due 1915, sold @ 115⅝, 3.80 basis	10,000 00	
Chicago, St. Paul & Minn. Ry. Co., 1st 6% Mtg. due 1918, sold @ 129½	12,000 00	
Chicago, St. Paul, Minn. & Omaha, Con. 6% due 1930, @ 129¾, 3.90 basis	30,000 00	
Chicago & Western Indiana R. R. Co	25,000 00	
Cincinnati, Hamilton & Dayton, Equip.	10,000 00	
Cincinnati, Hamilton & Dayton R. R. Co	10,000 00	
Clark's Creek Twp., Morris Co. Kan	1,000 00	
Crook Co., Wyoming	2,000 00	
Delaware & Hudson Con. 4% bonds, due 1916 sold @ 103	25,000 00	
Diamond Valley Twp. Morris Co. Kan.	1,000 00	
Eden Twp., Summer Co., Kan.	1,000 00	
Elk Creek Twp., Republic Co., Kan	1,000 00	
Evansville & Terre Haute Equip	5,000 00	
Fairbury City, Neb	4,000 00	
Florida East Coast Ry. Co., Notes	30,000 00	
Grant Twp., Jewell Co., Kan	1,000 00	
Green Garden Twp., Ellsworth Co., Kan	1,000 00	
Greeley Co., Neb. School District 7	1,500 00	
Hickory Twp., Butler Co., Kan	1,000 00	
Iola Twp., Allen Co. Kan	1,000 00	
Junction Twp., Osage Co, Kan. 6% bonds, sold @ 4% basis	16,000 00	
Lake Shore & Mich. So. Gen'l 4% due 1928, sold @ 95½, 4¼ basis	10,000 00	
Lane Twp., Greenwood Co., Kan	1,000 00	
Leavenworth Co., Kan	5,000 00	
Liberty Twp., Linn Co., Kan.	1,000 00	
Liberty Twp., Dickinson Co., Kan	1,000 00	
Lincoln Twp., Cloud Co., Kan	2,000 00	
Little Walnut Twp., Butler Co., Kan	5,000 00	
Lyon Twp., Dickinson Co., Kan	1,000 00	
Marquette City, McPherson Co., Kan.	500 00	
Marshall Co., Kan. 6% bonds, sold @ 4¼ basis	8,000 00	
Mitchell Co., Kan	28,000 00	
Neosha Twp., Coffey Co., Kan.	1,000 00	
New York Central & Hudson River R. R. Co., stock sold @ 115	15,800 00	
New York, New Haven & Hartford stock, sold @ 160	20,000 00	
Amounts carried forward	$445,300 00	$9,931,238 68

Amounts brought forward	$445,300.00	$9,931,238 68
Nevada Twp., Ness Co., Kan	1,000 00	
Nevada Twp., Ness Co., Kan. 5% bonds, sold @ 4% basis	3,000 00	
Northampton Twp., Rooks Co., Kan 5 ¼% bonds, sold @ 4% basis	13,000 00	
Northern Pacific, Gt. Northern C. B. & Q. joint 4%, due 1921, sold @ 98½, 4.15 basis	24,000 00	
Oskaloosa Twp., Jefferson Co., Kan ..	1,000 00	
Pennsylvania R. R. Co., 4% due 1948, sold @ 105, 3¾ basis	1,000 00	
Pierce Village, Pierce Co. Kan	500 00	
Plumb Grove Twp., Butler Co., Kan .	500 00	
Plum Twp., Phillips Co., Kan	1,000 00	
Rock Creek Twp., Nemaha Co., Kan .	1,000 00	
St. Paul, Minn. & Manitoba Ry., Montana Ext. 4% due 1937, sold @ 100¾	18,000 00	
Scandia Twp., Republic Co., Kan ...	1,000 00	
Shell Rock Twp., Greenwood Co., Kan	1,000 00	
Shoshone Co., Idaho............	1,000 00	
Silverdale Twp., Cowley Co., Kan....	3,000 00	
Smoky Hill Twp., McPherson Co., Kan	1,000 00	
South Haven Twp., Sumner Co., Kan	1,000 00	
Southern Pacific Co., 7% Pfd. stock, sold @ 123½	10,000 00	
Southern Pacific 1st Refg. 4% due 1955, sold @ 95¾, 4.20 basis	25,000 00	
Southern Pacific Co., Pfd. stock, sold @ 125	30,000 00	
Spring Creek Twp., Coffey Co., Kan .	2,000 00	
Stranger Twp., Leavenworth Co., Kan	5,000 00	
Stromsberg City, Neb	1,000 00	
Sumner Twp., Sumner Co., Kan	1,000 00	
Trow Directory P. & B. Co..........	5,000 00	
Union Pacific conv. 4% due 1927, sold @ 103¼, 3.80 basis..............	50,000 00	
Union Pacific R. R. Co., 4% Pfd. Stock, sold @ 96¼	50,000 00	
U. S. of Mexico	970 00	
U. S. Steel Sinking Fund 5% due 1963, sold @ 103¼	25,000 00	
U. S. Steel Sinking Fund Bonds, due 1963, sold @ 101¼	50,000 00	
Waring Twp., Ness Co., Kan	1,000 00	
Washington Twp., Rice Co., Kan	1,000 00	
Wheeling & Lake Erie Equip........	10,000 00	
St. Paul, Minn. & Manitoba Con. 4½% due 1933, sold @ 109½, 3.90 basis .	10,000 00	
Amounts carried forward	$794,270 00	$9,931,238 68

Amounts carried forward	$794,270 00	$9,931,238 68
Sundry Bonds and Mortgages	301,277 66	
Palmyra Gas Co., Note	20,000 00	
Decrease in Foreclosure Account	2,678 87	
Western Land Contracts—Paid during year	15,670 77	
Paid Account Warren States Contract	50 00	
Decrease in Advances and Ledger Balances	43,673 33	1,177,620 63
		$8,753,618 05

SCHEDULE XIV

CAPITAL ACCOUNT, 1908–1909

Capital August 1, 1908		$8,628,370 31
Add:		
Cottage Renewal Fund	$ 2,507 75	
Class '91 Memorial Fund	27 37	
Class '96 Memorial Fund	40 86	
Class '97 Memorial Fund	60 77	
Class '98 Alumni Hall Fund	16 82	
Class '08 Fund	1,480 41	
Cornell Endowment Reserve Fund ...	3,870 00	
F. W. Guiteau Student Loan Fund	2,511 68	
Mary F. Hall, D A. R. Fund	524 65	
Professorial Pension Fund	9,628 66	
Professorial Pension Income Fund	3,427 39	
Surplus Fund.......................	2,511 31	
Mary F. Hall Fund	2,500 00	
Nancy G. Howe Fund................	16,566 92	
Woman's Student Loan Fund	4,373 61	
Premium and Discount Fund	78,249 61	
Foreclosure Profit and Loss Fund	4,204 31	
Alumni Fund	125 00	
Polish Student Loan Fund............	134 00	
Frances Sampson Fine Arts Prize Fund	600 00	133,361 12
		$8,761,731 43
Increase in deficit	$ 3,239 20	
Student Loan Fund	2,781 52	
Increase in Student balances	2,092 66	8,113 38
		$8,753,618 05

SCHEDULE XV

BALANCES DUE AUG. 1, 1909 ON CONTRACTS FOR WESTERN LANDS SOLD

Carl N. Anderson	7%	$ 419 00
Louis Anderson	7	243 24
Mary H. Dodge	7	240 00
Chas. T. Geroue	6	270 00
Herman A. Jordan	6	99 22
Jump River Land Co	6	4,886 45
Fred A. Hunter	6	390 00
Cornell Land and Power Co	5½	30,000 00
W. F. Grover	6	350 00
Julius Kuehl	6	275 00
J. B. Saunders	6	150 00
South Muscatine Lumber Co	5½	25,000 00
Ole E. Lund	6	200 00
Carl Flug	6	180 00
Gust Wegan	6	500 00
G. & A. Lange	7	425 00
J. L. Gates Land Co	5½	27,401 86
Ole O. Smestune	6	325 00
Ben R. Eide	6	450 00
		$91,804 77

SCHEDULE XVI

REAL ESTATE

Land	*Acres*		
Campus	350	$217,758 05	
*Agricultural Farm	577	15,311 30	
Veterinary Farm	115	6,536 00	
Cornell Heights Lots		3,250 00	$242,855 35
Buildings	*Built or Acquired*		
Barnes Hall	1889	53,659 87	
Boardman Hall	1891	102,699 62	
Cascadilla Bldg	1868	37,010 94	
Carnegie Filtration Plant	1903	22,000 00	
Franklin Hall	1883	100,923 11	
Fuertes Observatory	1902	6,624 92	
Goldwin Smith Hall	1904	353,550 25	
Hydraulic Lab'y Bldg	1902	7,390 00	
Infirmary	1898	60,000 00	
Library	1890	296,020 90	
Lincoln Hall	1888	72,603 10	
MacKoon Cottage	1883	14,248 97	
McGraw Hall	1871	120,000 00	
Amounts carried forward		$1,246,731 68	$242,855 35

Amounts carried forward		$1,246,731 68		$242,855 35
Medical Coll. N. Y. City	1901	850,000 00		
Loomis Lab'y N. Y. City	1906	120,000 00		
Medical Coll. Laby. N. Y. City	1906	75,000 00		
Military Hall & Gym	1883–1892	56,902 72		
Morrill Hall	1868	70,111 25		
Morse Hall and Annex	1890–1898	133,930 10		
North Barn	1883	5,987 30		
Power House	1906	10,000 00		
President's House	1876	50,000 00		
Repair Shop	1895	6,000 00		
Rockefeller Hall	1904	274,494 01		
Sage Chapel and Organ	1874–1895	40,000 00		
H. W. Sage Memorial Apse	1898	12,000 00		
Memorial Chapel	1883	11,547 76		
Sage Coll. and Conserv.	1875–1895	210,662 15		
Sage College Cottage	1897	13,000 00		
Sibley Buildings	1871–1902	218,361 56		
South Barn	1902	5,000 00		
Stimson Hall	1901	130,756 63		
Susan Linn Sage Cottage	1887	11,215 79		
Thurston Cottage	1905	10,000 00		
White Hall	1873	80,485 16		3,642,186 11
Total C. U. Real Estate				$3,885,041 46
State Veterinary College				
Original Buildings	1895	135,000 00		
Operating Ward	1908	6,796 67		141,796 67
State Agricultural College				
Original Buildings	1906	275,000 00		
Poultry Houses	1908	2,001 00		277,001 00
				$4,303,839 13

$29,773 49 now carried in the Farm Purchase Account was advanced from Productive Funds for the purchase of Agricultural Farms and is carried as an investment to be cancelled by annual payments from the University appropriation to Agricultural. As the payments are made the amount will be carried to Real Estate Account. This account also does not include the value of the Preswick farm, payment for which is made in the form of an annuity.

SCHEDULE XVII

EQUIPMENT

Archaeology	$ 5,535 00
Architecture	25,100 51
Botanical	18,320 84
Chemical	97,963 82
Civil Engineering	65,061 20
Electric Service	29,177 35
Entomological	21,655 40
Amount carried forward	$262,814 12

Amount carried forward		$262,814 12
Geological		75,607 75
German		433 75
Greek		2,613 70
Grounds		8,448 70
Gymnasium		10,750 75
Infirmary		7,259 51
Law Department (Furniture)		5,687 50
Library		719,158 00
Mathematical		487 00
Mechanical		211,332 65
Medical, New York		63,443 90
Medical, Ithaca—		
Embryology Research	$ 5,326 25	
Histology	15,761 86	
Physiology	15,295 20	
Anatomy	21,619 30	
Surgery	300 00	
Library	600 00	
		$58,902 61
Military		3,319 04
Museum Classical Archaeology		19,517 90
Neurology		43,129 68
Physical		117,914 16
Pedagogy		3,202 15
Physical Geography		12,084 43
Psychological		14,914 95
Tunnel & Flume		29,700 00
Water Works System		34,728 65
Carpenter Shop & Tools		3,463 73
Repairs—Stock		4,877 06
Furniture		14,201 20
Miscellaneous		15,455 00
Steam Heating & Tools		978 00
Agr. Experiment Station		14,503 90
Classical		720 00
Fire Apparatus		1,919 00
Memorial Chapel, Statuary		18,274 75
		$1,779,843 54
State Veterinary College		43,159 45
State Agricultural College		111,612 85
		$1,934,615 84

SCHEDULE XVIII

RECEIPTS AND DISBURSEMENTS ACCOUNT WESTERN LANDS FOR YEAR ENDING AUGUST 1, 1909

Receipts, Aug. 1. 1908, to Aug. 1, 1909.		*Disbursements Aug. 1. 1908, to Aug. 1, 1909.*	
Land and Timber Contracts	$15,670 77	Taxes..........$	264 84
Hay	27 00	Commissions....	288 75
		General Expense	53 79
		Balance	15,090 39
	$15,697 77		$15,697 77
Excess of Receipts over Disbursements ....$	15,090 39		
C. U. Bal. Aug. 1, 1908	4,932,727 97		
C. U. Bal. Aug. 1, 1909	$4,947,818 36		

SCHEDULE XIX

TRIAL BALANCE LAND LEDGER

Expense	1,726,564 42	Land	$4,529,072 87
Cornell University	4,947,818 36	Timber	2,211,616 59
Bal. due on Contracts	91,804 77	Trespass	20,063 90
		Hay	4,268 14
		Farm Land Rent	758 05
		College Land Scrip	408 00
	$6,766,187 55		$6,766,187 55

SCHEDULE XX

FARM LAND SALES

	Acres	Amount.
N. A. Poznamski	793.76	$3,200 00
Gustav and Augusta Lange	80	625 00
Ole O. Smestusn	80	625 00
	953 76	$4,450 00

SCHEDULE XXI

SUMMARY OF BALANCES DUE ON CONTRACTS

August 1, 1908, balance due	$103,025 54
Add:	
Farm Land Sales during the year	4,450 00
	$107,475 54
Amount received account Land and Timber Contracts	15,670 77
Balance, August 1, 1909	$ 91,804 77

SCHEDULE XXII

SUMMARY OF ACREAGE

Balance unsold August 1, 1908	2,773.07	Acres
Sales during the year	953.76	"
Balance unsold, August 1, 1909	1,819.31	"

SCHEDULE XXIII

NEW YORK STATE VETERINARY COLLEGE

Maintenance Account:		
Balance on hand August 1, 1908		$ 1,813 30
Appropriation State of New York for 1908–1909		30,000 00
Expenditures:		
Salaries (Instructing Staff)	$20,757 85	
Pay Roll (Other Employees)	3,447 72	
Electric Lights	80 15	
Gas	150 20	
Fuel	535 51	
Repairs	231 01	
Advertising	233 00	
Flower Library	200 00	
Departments	4,057 45	
Contingent Expenses	564 76	
	$30,257 65	
Balance unexpended Aug. 1, 1909	1,555 65	
	$31,813 30	$31,813 30
Income Account:		
Balance on hand Aug. 1, 1908		$12,852 76

Received Aug. 1, 1908 to July 31, 1909:

Laboratory Fees	$2,559 60	
Tuition	1,465 00	
Rent Groom's Cottage	30 00	
Roof Fund	250 00	
Miscellaneous	2,649 63	$6,954 23

Expended Aug. 1, 1908 to July 31, 1909:

Salaries	$100 00	
Insurance	492 25	
Repairs	107 25	
Advertising	40 00	
Flower Library	6 50	
Departments	4,933 63	
Team & Wagons	1,063 41	
Contingent Expense (including operating room)	8,693 56	
	$15,436 60	
Balance unexpended August 1, 1909	4,370 39	
	$19,806 99	$19,806 99

1909—$10,000 Appropriation for Special Research, etc.:

Expended	$ 279 76
Unexpended balance of appropriation	9,720 24

SCHEDULE XXIV

STATE COLLEGE OF AGRICULTURE

1906 STATE MAINTENANCE APPROPRIATION (1906–1907)

Balance unexpended Aug. 1, 1908		$1,979 68
Expended as follows:		
Buildings and Repairs	$ 206 18	
Furniture and Fixtures	21 00	
Salaries	1,752 50	1,979 68

1907 STATE MAINTENANCE APPROPRIATION (1907–1908):

Balance unexpended Aug. 1, 1908		$28,876 36
Expended as follows:		
Office, Gen'l Maintenance and printing	$9,617 08	
Salaries	9,425 60	
Chemistry	170 45	
Farm Maintenance	3,293 43	
Entomology	58 21	
Amounts carried forward	**$22,564 77**	**$28,876 36**

Amounts brought forward	$22,564 77	$28,876 36
Rural School Leaflet	112 02	
Home Economics	83 18	
Rural Art	94	
Lighting	177 15	
Farm Mechanics	9 78	
Farmers' Reading Course	45 49	
Planting of Grounds	496 62	
Soils	451 76	
Horticulture	328 10	
Drawing	238 30	
Farmers' Wives' Reading Course	49 16	
Poultry Husbandry Dept	507 17	
Extension Work	379 57	
Home Nature Study	61 72	
Rural Economy	31 50	
Graduate School	1,786 95	
Plant Physiology	421 64	
Animal Husbandry	316 41	
Farm Crops	486 33	
Plant Pathology	327 80	
		$ 28,876 36

1908 STATE MAINTENANCE APPROPRIATION, (1908–1909)

Appropriation		$150,000 00
Expended as follows:		
Office, Printing and General Maintenance	$12,136 96	
Rural Art	362 78	
Entomology	2,282 46	
Animal Husbandry	3,622 18	
Horticulture	3,375 59	
Plant Pathology	621 77	
Farm Practice	12,344 44	
Reading Course for Farmers' Wives	1,964 55	
Rural School Leaflet	2,115 68	
Extension Teaching	2,960 12	
Farm Mechanics	322 46	
Plant Physiology	786 97	
Reading Course for Farmers	1,774 33	
Home Nature Study	758 20	
Poultry Husbandry	3,032 18	
Soils	730 33	
Farm Crops	1,300 89	
Rural Economy	156 39	
Salaries	62,489 09	
Drawing	108 34	
Dairy Industry	7,408 47	
Janitors	5,007 23	
Pomology	1,128 31	
Amounts carried forward	$126,789 72	$150,000 00

Amounts brought forward	$126,789 72	$150,000 00
Home Economics	388 98	
Lighting	1,727 09	
Chemistry	68 43	
Heating	3,880 24	132,854 46
Balance unexpended Aug. 1, 1909		$ 17,145 54

1908 $10,000 APPROPRIATION FOR EXTENSION WORK UPON THE FARMS AND AMONG THE FARMERS OF THE STATE

Balance unexpended Aug. 1, 1908		$ 9,498 61
Expended as follows:		
Extension (publications, lectures, etc.)	4,144 11	
Surveys	4,693 36	8,837 47
Balance unexpended		661 14
Expended as above		8,837 47
Expended Aug. 1, 1907 to Aug. 1, 1908		501 39
		$9,338 86
Received from State		3,494 68
Due Cornell University from State		$ 5,844 18

1909 $10,000 APPROPRIATION FOR EXTENSION WORK, ETC

Appropriation		$10,000 00
Expended as follows:		
Extension Work	$ 666 00	
Surveys	741 18	$ 1,407 18
Balance Aug. 1, 1909		$ 8,592 82

STATE AGRICULTURAL INCOME ACCOUNT

Balance on hand Aug. 1, 1908		$ 6,663 58
Received from Dairy Industry Sales	$67,352 53	
Received from Poultry Husbandry Sales	4,534 13	
Received from Horticultural Sales	188 68	
Received from Fees	12,549 62	84,624 96
		$91,288 54
Expended as follows:		
Dairy Industry Dept	$71,129 85	
Poultry Husbandry Dept	4,492 35	
Office	7,493 33	
Horticultural Dept	1,176 17	84,291 70
Balance Aug. 1, 1909		$ 6,996 84

C. U. AGRICULTURAL INCOME ACCOUNT

Balance Aug. 1, 1908	$ 2,104 85
Received from sale of stock, produce, etc...	10,550 54
	$12,655 39
Expended to Aug. 1, 1909	8,351 35
Balance	$ 4,304 04

STATEMENT OF EQUIPMENT APPROPRIATION, AUG. 1, 1909

Balance unexpended Aug. 1, 1908		$ 4,653 25
Expended for Equipment to Aug. 1, 1909 ..		4,653 25
Due from State Aug. 1, 1908	$9,438 15	
Expended as above	4,653 25	
	14,091 40	
Received from State	8,425 95	
Due from State	$ 5,665 45	

STATEMENT OF $25,000 APPROPRIATION OF 1907 FOR BARNS, ETC.

Expended as per report Aug. 1, 1908	$ 2,001 00
Received from State	2,001 00
Unexpended balance of Appropriation	$22,999 00

SCHEDULE XXV

STATE COLLEGE FORESTRY LUMBERING ACCOUNT

Balance Aug. 1, 1908	$8,329 26	
Income from rents, etc. during year	578 85	$8,908 11
Expended during year		104 52
Balance August 1, 1909		$8,803 59
Deposited in First Nat'l Bank, Col. of Forestry Account	$ 8,983 90	
Due C. U. money advanced	180 31	
	$8,803 59	

SCHEDULE XXVI

CORNELL INFIRMARY

Balance on hand August 1, 1908		$11,292 57
Received from Infirmary Fees		14,120 00
Received from patients for services not covered by fees		2,401 97
Income from Endowment Fund		4,930 00
		$32,744 54
EXPENDED August 1, 1908 to August 1, 1909:		
Labor (House and Grounds)	$ 1,174 28	
Supplies	4,066 35	
Equipment (Professional)	122 33	
Equipment (House)	319 96	
Fuel	705 67	
Gas (Heat and Light)	104 60	
Electric Lights	102 60	
Water	69 36	
Repairs	1,303 87	
Care of Grounds	112 68	
Contingent	449 43	
Furniture	225 26	
Superintendent	750 00	
Nurses	1,427 58	
Insurance	200 00	
	$11,133 97	
City Hospital 1908–9	1,763 57	
City Hospital 1907–8	823 35	13,720 89
		$19,023 65

SCHEDULE XXVII

SURPLUS FUND

Amount of fund August 1, 1908		$ 930 03
5% of General Income not including income on Special Funds	$37,465 46	
Income on Fund	45 85	37,511 31
		38,441 34
Amount transferred to Income 1908–1909		35,000 00
Amount of fund August 1, 1909		$ 3,441 34

SCHEDULE XXVIII

STUDENT LOAN FUND

Amount of fund August 1, 1908	$ 2,781 52
Received on loans until account was transferred to Women Students Loan Fund	122 15
Amount carried forward	$ 2,903 67

Amount brought forward	$2,903 67
Student, notes taken before transfer	93 50
	$ 2,810 17
Amount transferred to Women Students' Loan Fund	2,810 17

WOMEN STUDENTS' LOAN FUND

Amount of fund, August 1, 1908		$ 2,694 67
Received on loans during year............	$2,088 44	
Amount transferred from Student Loan Fund..............................	2,810 17	4,898 61
		$ 7,593 28
Amount loaned during year		525 00
		$ 7,068 28

GUITEAU STUDENT LOAN FUND

	Principal of Fund.	Income.	Loans.	Payments of Loans Principal.	Payments of Loans Interest.
1906–7	$132,678 38	$6,747 44	$7,302 00	$ 395 00	$ 82
1907–8	211,999 99	8,344 45	7,226 00	1,142 00	57 50
1908–9	231,078 59	11,392 18	7,802 10	2,269 00	242 68
		26,484 07	22,330 10	3,806 00	301 00
Less payments of loans..			3,806 00		
Loans outstanding			$18,524 10		

SCHEDULE XXIX

DONATIONS

G. C. Boldt—For Refrigerator.....................	$ 1,000 00
A. D. White—For Apparatus for Chimer	34 15
A. R. Eastman—For Prize in College of Agriculture ..	36 00
E. J. Bennett—For Law Library	2,000 00
Polish Students—For Polish Student Loan Fund.....	134 00
Class of 1908—For Class of 1908 Fund	1,480 41
Nancy G. Howe Estate—For Guiteau Student Loan Fund..	16,566 92
Mary F. Hall—For Mary F. Hall Scholarship	2,500 00
Dr. R. T. Morris—For cases for Morris Collection of Edible Nuts of the World	115 00
J. G. Sullivan—For Alumni Endowment Fund.......	125 00
Mary F. Hall—For Mary F. Hall D. A. R. Fund	500 00
M. W. Sampson—For Frances Sampson Fine Arts Fund	600 00
Oliver H. Payne—For Medical College N. Y. City	160,000 00
	$185,091 48

SCHEDULE XXX

ESTIMATED INCOME 1909–1910

Income on securities			$ 428,561 60
Back interest received			5,669 00
Add:			
Rent of Sage College and Cottage		$ 15,000 00	
" " Cascadilla and Cottages		9,683 56	
Student fees, regular session		395,170 99	
" " summer session		21,399 96	
Cornell Infirmary		16,500 00	
Interest on student notes		500 00	
Departments		2,500 00	
Alumnae Scholarship		100 00	
Agric. Exp. Sta., Hatch	$13,500 00		
" " " Adams	11,700 00		
" " " Income	150 00	$25,350 00	
Cong. Ind. Fund, Morrill	$25,000 00		
" " " Nelson	15,000 00	$40,000 00	526,204 51
			$960,435 11
Deduct:			
5% of General Income to Surplus Fund		$37,000 00	
Amount transferred to Principal of Funds		11,500 00	$48,500 00
Estimated income at Ithaca			$911,935 11
" " " N. Y. City			203,640 00
			$1,115,575 11
Excess of expenditures over income to August 1, 1909 (See 1st page)		$ 66,948 11	
Amount of income due special funds		35,990 08	
Amount due on appropriation to complete contracts of last year		10,535 16	
		$113,473 35	

CERTIFICATE OF AUDITING COMMITTEE

We hereby certify that we have examined the University Cash Book, Dr. and Cr. from Aug. 1, 1908, to Aug. 1, 1909; the balance due on Western Land Contracts, as specified in Schedule 15 of the foregoing report, amounting to $91, 804.77; that we have compared the same with notes exhibited by E. L. Williams, Treasurer, and with receipts for those in the course of collection; and that we have examined the securities as specified in Schedule 9 of this report, amounting to $8,753,618.05, and find all of same correct.

HENRY B. LORD,
CHARLES E. TREMAN.
Auditing Committee

APPENDIX I

CHANGES IN THE STAFF OF INSTRUCTION

The following new appointments were made during the year 1908–1909:

J. P. Bretz, Assistant Professor of American History, September 30, 1908.
E. Baker, Assistant Professor of Obstetrics and the Practice of Medicine (promoted from a lectureship), October 27, 1908.
M. B. Tinker, Assistant Professor of Surgery (promoted from a lectureship), October 27, 1908.
F. L. Ackerman, Lecturer in Design in the College of Architecture (Second Term), February 16, 1909.
W. A. Riley, Secretary of the College of Agriculture, October 13, 1908.
E. S. Guthrie, Instructor in Dairy Industry, September 30, 1908.
A. D. DuBois, Instructor in Electrical Engineering, September 30, 1908.
F. G. Anderson, Instructor in Experimental Electrical Engineering (First Term), September 30, 1908, and Instructor in Civil Engineering (Second Term), February 2, 1909.
R. P. Davis and W. B. Cornell, Instructors in Civil Engineering, September 30, 1908.
E. K. Soper, Instructor in Economic Geology, September 30, 1908.
R. D. Schrock, Instructor in Physiology and Pharmacology (promoted from an assistantship), September 30, 1908.
C. Sturgis, Instructor in Romance Languages, September 30, 1908.
G. E. Burnap, Instructor in Rural Art, October 13, 1908.
M. P. Jones, Instructor in Extension Teaching, October 13, 1908.
H. Stephenson, Instructor in Experimental Engineering, October 13, 1908.
R. D. Smith, Instructor in Political Economy and Statistics (promoted from an assistantship), October 13, 1908.
E. J. Bailey, Instructor in English, October 13, 1908.
C. T. Stagg, Instructor in the College of Law, November 24, 1908.

F. R. Wright, Instructor in Bacteriology in the Veterinary College (Second Term), January 13, 1909.
T. B. Hyde, Instructor in Experimental Engineering, April 27, 1909.
T. F. Mead, Assistant in Histology and Embryology, September 30, 1908.
A. A. Johnson, Assistant in Physiology and Pharmacology, September 30, 1908.
W. J. O'Connell, Assistant in Wrestling, September 30, 1908.
W. B. Smith, Assistant in Machine Shop, September 30, 1908.
H. W. Gillett and J. C. Cothran, Assistants in Chemistry, September 30, 1908.
C. H. Williams, Assistant in Philosophy, September 30, 1908.
R. J. Spencer, Assistant in Economics, October 13, 1908.
R. E. Coulson, Assistant in Political Economy and Finance, October 13, 1908.
M. Kush, Assistant in Neurology and Vertebrate Zoology, October 13, 1908.
W. E. Hopper, Assistant in Geology, October 13, 1908.
A. J. Wilson, J. Gaub, A. C. Kraft, and S. W. Shattuck, Assistants in Chemistry, October 13, 1908.
E. R. Crofts, Assistant in Physical Culture, October 13, 1908.
H. N. Simpson, Assistant in Physical Geography, October 13, 1908.
C. A. Brooks, Assistant in Forge Shop, October 13, 1908.
H. B. McWhorter, Assistant in Foundry, October 13, 1908.
T. B. Hyde and M. F. Thurston, Assistants in Physics, October 27, 1908.
H. W. Martin, Assistant in Oratory, October 27, 1908.
J. H. Snook, Assistant in Veterinary Clinical Medicine and Surgery, October 27, 1908.
E. Sameth, Assistant in the Sage College Gymnasium, October 27, 1908.
H. Schull, H. Bacheller, and W. S. Lyon, Assistants in Poultry Husbandry, October 27, 1908.
H. J. Pierce, Assistant in Machine Design, November 4, 1908.
A. C. Stryke, Assistant in Entomology, November 4, 1908.
W. McHenry, Assistant in Veterinary Pathology and Bacteriology, November 10, 1908.
F. J. Biele, Assistant in Geology (for the remainder of the First Term), November 24, 1908.
L. Connelly, Assistant in Boxing, January 12, 1909.
R. Saby, Assistant in Politics, January 12, 1909.

S. G. Rubinow, Assistant in the Department of Physical Culture (Second Term), February 2, 1909.
A. H. Gilbert, Assistant in Neurology and Vertebrate Zoology (Second Term), February 2, 1909.
E. C. Mayer and E. T. Turner, Assistants in Physics (Second Term), February 16, 1909.
W. J. Marsh, Assistant in Chemistry, April 20, 1909.
C. C. Murdock, Assistant in Physics, May 1, 1909.
J. E. Fredericks, Assistant in Machine Design, May 15, 1909.
R. D. Anthony, Assistant in Horticulture, May 25, 1909.

SUMMER SESSION, 1909

R. P. Anderson, Assistant in Chemistry.
C. C. Bell, Teacher of Psychology in the Brooklyn Training School for Teachers.
E. J. Bailey, Instructor in English.
A. N. Bean, Assistant in Biology.
H. H. Brown, Head of the Department of Drawing, Stuyvesant High School, New York City.
D. Derickson, Assistant Professor of Civil Engineering.
G. C. Embody, Instructor in Zoology.
W. S. Foster, Assistant in Psychology.
C. O. Harris, Professor of Greek and Latin, Illinois College.
J. B. Hill, Assistant in Botany.
W. A. Hilton, Instructor in Zoology.
E. F. Hitch, Assistant in Chemistry.
L. Hooper, Assistant in Shop.
J. L. King, Assistant in Physiology.
B. J. Lemon, Assistant in Chemistry.
F. W. C. Lieder, Instructor in German.
F. Lynham, Assistant in Shop.
B. S. Monroe, Instructor in English.
G. W. Nasmyth, Instructor in Physics.
E. H. Nichols, Instructor in Chemistry.
A. B. Poland, Superintendent of Schools, Newark, N. J.
H. W. Redfield, Instructor in Chemistry.
M. H. Robinson, Professor of Industry and Transportation, University of Illinois.
A. Schinz, Associate Professor of French. Bryn Mawr College.
J. H. Scott, Assistant in Chemistry.
F. J. Seery, Instructor in Civil Engineering.

F. R. Sharpe, Instructor in Mathematics.
H. N. Simpson, Assistant in Geography.
A. C. Stryke, Assistant in Zoology.
W. Strunk, Jr., Professor of the English Language and Literature.
T. W. B. Welsh, Assistant in Chemistry.
J. A. Wilkinson, Assistant in Chemistry.
H. E. Wood, Supervisor of Manual Training, Indianapolis, Ind.

The following appointments were made up to and including July 21st, 1909, to take effect at the beginning of the academic year 1909–1910:

T. F. Crane, Professor of the Romance Languages and Literatures, Emeritus, April 1, 1909.
E. G. Merritt, Dean of the Graduate School, May 18, 1909.
H. J. Webber, Acting Director of the New York State College of Agriculture, June 1, 1909.
Graham Lusk, Professor of Physiology, January 23, 1909.
I. Haynes, Professor of Practical Anatomy (promoted), April 3, 1909.
M. W. Sampson, Professor of the English Language and Literature and Head of the Department, April 3, 1909.
W. Strunk, Jr., Professor of the English Language and Literature (promoted), April 3, 1909.
W. W. Comfort, Professor of the Romance Languages and Literatures and Head of the Department, April 3, 1909.
E. W. Olmsted, Professor of the Romance Languages and Literatures, (promoted), April 3, 1909.
H. A. Sill, Professor of Ancient History (promoted), April 3, 1909.
H. C. Elmer and C. L. Durham, Professors of Latin (promoted), June 17, 1909.
O. M. Brauner, Professor of Drawing and Painting in the College of Architecture (promoted), June 17, 1909.
C. F. Hirshfeld, Professor of Power Engineering in Sibley College (promoted), June 17, 1909.
G. D. Harris, Professor of Paleontology and Stratigraphic Geology (promoted), June 17, 1909.
E. W. Kemmerer, Professor of Economics and Finance (promoted), June 17, 1909.
G. W. Cavanaugh, Professor of Chemistry in its relations to Agriculture (promoted), June 17, 1909.

H. H. Whetzel, Professor of Plant Pathology (promoted), June 17, 1909.

E. O. Fippin, Professor of Soil Technology (promoted), June 17, 1909.

G. F. Warren, Professor of Farm Management and Farm Crops (promoted), June 17, 1909.

W. A. Stocking, Jr., Professor of Dairy Industry (promoted), June 17, 1909.

G. N. Lauman, Professor of Rural Economy (promoted), June 17, 1909.

F. S. Meara, Professor of Therapeutics and Clinical Medicine, June 17, 1909.

C. N. B. Camac, Professor of Clinical Medicine (promoted), June 17, 1909.

W. J. Elser, Professor of Bacteriology (promoted), June 17, 1909.

J. A. Hartwell and W. B. Coley, Professors of Clinical Surgery (the former promoted), June 17, 1909.

H. Davidsen, Assistant Professor of German (promoted), February 9, 1909.

J. Q. Adams, Jr., Assistant Professor of the English Language and Literature (promoted), April 1, 1909.

C. T. Stagg, Assistant Professor of Law (promoted), April 3, 1909.

C. G. L. Wolf, Assistant Professor of Chemistry (promoted), April 3, 1909.

C. R. Stockard, Assistant Professor of Embryology and Experimental Morphology (promoted), April 3, 1909.

S. B. Clark, Assistant Professor of Latin, April 27, 1909.

A. Hoch, Assistant Professor of Clinical Medicine, Department of Psycopathology, May 11, 1909.

M. Dresbach, Assistant Professor of Pharmacology, May 19, 1909.

C. P. Emerson, Assistant Professor of Medicine, May 19, 1909.

C. R. Crosby, Assistant Professor of Entomological Investigations (promoted), May 19, 1909.

H. H. Love, Assistant Professor of Plant Breeding Investigations (promoted), May 19, 1909.

A. W. Gilbert, Assistant Professor of Plant Breeding, May 19, 1909.

D. Reddick, Assistant Professor of Plant Pathology, May 19, 1909.

H. E. Ross, Assistant Professor of Dairy Industry, May 19, 1909.

H. W. Riley, Assistant Professor of Farm Mechanics, May 19, 1909.

J. E. Newcomb, Assistant Professor of Clinical Surgery, Department of Laryngology and Rhinology, June 11, 1909.

G. W. Herrick, Assistant Professor of Economic Entomology, and Assistant Entomologist of the Experiment Station, June 17, 1909.

S. P. Beebe, Assistant Professor of Experimental Therapeutics, June 17, 1909.

J. R. Murlin, Assistant Professor of Physiology, June 17, 1909.

W. Bensel, Lecturer on Hygiene and Municipal Sanitation, May 11, 1909.

A. A. Allen and G. C. Embody, Instructors in Neurology and Vertebrate Zoology, March 22, 1909.

T. W. Riker, Instructor in Modern European History, April 27, 1909.

F. M. Huntoon, Instructor in Bacteriology (promoted), May 11, 1909.

J. C. Torrey, Instructor in Experimental Pathology (promoted), May 11, 1909.

R. Weil, Instructor in Experimental Therapeutics, Pharmacology, and Materia Medica (promoted), May 11, 1909.

J. F. Gudernatsch, Instructor in Embryology and Experimental Morphology, May 11, 1909.

R. M. Daley, Clinical Instructor in Medicine, Department of Neurology (promoted), May 11, 1909.

C. M. Campbell, Clinical Instructor in Medicine, Department of Psycopathology, May 11, 1909.

H. Pearson, Instructor in Anæsthesia, May 11, 1909.

B. J. Lee, Instructor in Clinical Surgery (promoted), May 11, 1909.

V. C. Thorne, Clinical Instructor in Surgery, Department of Diseases of the Genito-Urinary System (promoted), May 11, 1909.

E. Conner, Clinical Instructor in Surgery, Department of Otology (promoted), May 11, 1909.

P. W. Roberts, Clinical Instructor in Surgery, Department of Orthopedics, May 11, 1909.

W. W. Hyde, Instructor in Greek, May 19, 1909.

A. LeRoy Andrews, Instructor in German and Scandinavian, May 19, 1909.

J. F. Mason, Instructor in the Romance Languages, May 19, 1909.

W. B. Catlin, Instructor in Economics, May 19, 1909.

W. E. Lagerquist, Instructor in Political Economy and Statistics, May 19, 1909.

L. R. Geissler, Instructor in Psychology (promoted), May 19, 1909.

J. V. McKelvey and L. L. Silverman, Instructors in Mathematics, May 19, 1909.

A. S. Galadjikian, Instructor in Physics (promoted), May 19, 1909.

E. H. Nichols and T. W. B. Welsh, Instructors in Chemistry (promoted), May 19, 1909.

J. L. Rich, Instructor in Physical Geography, May 19, 1909.

G. R. Thompson, Instructor in Architecture, May 19, 1909.

W. J. McKee and R. M. Bowman, Instructors in Civil Engineering, May 19, 1909.

G. D. Gates, G. T. Hider, and F. B. Wetherill, Instructors in Machine Design (the first named promoted), May 19, 1909.

C. K. Carpenter and M. A. Lee, Instructors in Experimental Engineering, May 19, 1909.

W. H. Boynton and E. G. Peterson, Instructors in Veterinary Bacteriology (the former promoted), May 19, 1909.

L. J. Cross, Instructor in Agricultural Chemistry (promoted), May 19, 1909.

K. C. Livermore, Instructor in Farm Crops, May 19, 1909.

M. Jenkins, Instructor in Dairy Industry (promoted), May 19, 1909.

C. Midjo, Instructor in Freehand Drawing in the College of Architecture, May 25, 1909.

E. Thompson, Instructor in English, May 25, 1909.

L. G. Nightingale, Instructor in Experimental Engineering, June 11, 1909.

F. T. Burke, Clinical Instructor in Surgery, Department of Laryngology and Rhinology (promoted), June 17, 1909.

W. R. Cornell and E. H. Taylor, Instructors in Civil Engineering, June 30, 1909.

C. E. Torrance, Instructor in Experimental Engineering, July 21, 1909.

D. R. Francis and P. L. Peach, Instructors in Machine Design, July 21, 1909.

E. Cooke, Assistant in Experimental Therapeutics, May 11, 1909.

A. Ringer, Assistant in Physiology, May 11, 1909.

D. W. MacKenzie and J. G. Yocum, Clinical Assistants in Surgery, Department of Diseases of the Genito-Urinary System, May 11, 1909.

H. E. Smith, Assistant in Politics, May 19, 1909.

S. W. Moore, Assistant in Political Economy and Finance, May 19, 1909.

W. S. Foster, Assistant in Psychology, May 19, 1909.

A. H. Forman and C. Zeller, Assistants in Physics, May 19, 1909.

C. W. Bennett, G. J. Fink, F. E. Rice, E. F. Hitch, T. R. Briggs, and G. A. Perley, Assistants in Chemistry, May 19, 1909.

J. T. Barrett and H. G. Perry, Assistants in Botany, May 19, 1909.

A. C. Chandler, Assistant in Neurology and Vertebrate Zoology, May 19, 1909.

S. W. Allen, Assistant in Geology, May 19, 1909.

R. A. Mordoff, Assistant in Physical Geography, May 19, 1909.

C. G. Coggeshall and H. G. Hadley, Assistants in Physical Culture, May 19, 1909.

A. C. Durand, Demonstrator of Anatomy, May 19, 1909.

H. W. Mayers, Assistant in Physiology and Biochemistry, May 19, 1909.

J. G. Pertsch, Jr., Assistant in Electrical Engineering, May 19, 1909.

R. R. Bolton, Assistant in Veterinary Bacteriology, May 19, 1909.

H. H. Haight, Assistant in Veterinary Bacteriology, and Translator, May 19, 1909.

C. E. Hayden, Assistant in Veterinary Physiology and Pharmacology, May 19, 1909.

F. F. Koenig, Assistant in Veterinary Medicine, May 19, 1909.

F. S. Harris, Assistant in Soil Technology, May 19, 1909.

R. Matheson, Assistant in Entomology, May 19, 1909.

A. McAllister, Laboratory Assistant in Plant Pathology, May 19, 1909.

A. T. Moir, Assistant in Poultry Husbandry, May 19, 1909.

F. A. Wheeler, Assistant in Nature Study, May 19, 1909.

V. McCaughey, Assistant in Rural Education, June 1, 1909.

H. R. Muller, Assistant in Biochemistry, June 11, 1909.

A. Tjomsland, Assistant in Extension Teaching, June 11, 1909.

F. S. Jacoby, Assistant in the Department of Poultry Husbandry, June 11, 1909.

C. N. Jensen, Assistant in Plant Pathology, June 17, 1909.

C. F. Miller, Assistant in Chemistry, June 17, 1909.

C. E. Cook, Assistant in Veterinary Physiology and Pharmacology, June 30, 1909.

A. O. Kelly, Assistant in Histology and Embryology, July 21, 1909.

W. K. Miller, Assistant in Modern European History, July 21, 1909.

H. Gallagher, Assistant in Foundry, July 21, 1909.

R. C. Edlund, President's Secretary and University Publisher, May 19, 1909.

Mrs. G. S. Martin, Adviser of Women, June 1, 1909.

J. S. Ferguson, Secretary of the Faculty of the Medical College in New York City, June 11, 1909.

L. Leland, Assistant in Order and Periodical Department of Library, June 1, 1909.

T. J. Hearn, D. B. Wyckoff, and C. F. Morey, Assistant Law Librarians, June 17, 1909.

APPENDIX II

REPORT OF THE DEAN OF THE UNIVERSITY FACULTY

To the President of the University:

Sir:—I have the honor to submit my seventh and last annual report as Dean of the University Faculty. The subject matter is arranged with reference to the work of the committees of which the Dean is *ex-officio* chairman, and with reference to such functions as have been especially assigned to him by the Faculty.

During the past year the University was called upon to mourn the death of Mark Vernon Slingerland, Assistant Professor of Economic Entomology in the College of Agriculture and a member of the University Faculty. The following resolutions of respect and condolence were spread upon the minutes of the Faculty and communicated to the family:

"On Wednesday, March 11, 1909, death removed from among us our respected friend and valued colleague, Mark Vernon Slingerland. His death is a serious loss to the world of natural science in which he was a conscientious and honored student, as well as to the Faculty of this University where his opinion and voice were respected, and a deep source of grief to a wide circle of friends in University and town.

He came to this community as a student in 1888, was graduated in 1892, and entered the instructing staff of this University in the same year. His progress thereafter was rapid, but also substantial. As a student, his career was marked by earnestness, courage, and industry. As a teacher, he was direct and forceful. As an investigator, he was conscientious, unbiased, persevering, and accurate. In his special field of economic entomology his authority and leadership received unquestioned recognition. As a student of the life history and means of controlling insects which prey upon domestic animals and cultivated plants, his investigations embraced an exceptionally wide range. While the numerous monographs he prepared have been of incalculable benefit to those engaged in the field of plant and animal production, they remain also as enduring monuments to a life which, though lamentably short, yet overflowed with a special type of beneficent usefulness. His opinion, advice, and judgment were valued alike by student and colleague. Those who knew him as a friend were privileged. They appreciated him as a man of character wedded to truth, unswerving in conviction, and consistent in maintaining his ideals. Though diffident in expressing opinions, his mind was of the eminently practical kind, which, discarding unimportant details, concentrates on the immediately essential. His memory is cherished as a man whose life, though short, stands as a notable example of one who gave his years unselfishly and devotedly to the discovery of useful truths in the realm of natural history in their relation to the economy of plant and animal life. Measured by years, his life was short; measured by achievement, he lived long. As a scientist, we honor his memory; as a man and a colleague, we mourn his loss.

J. H. Comstock,
John Craig, *Committee.*
W. W. Rowlee."

On October 16–17, Haverford College celebrated the 75th anniversary of its foundation, and the following address of congratulation was adopted by the Faculty and conveyed to Haverford College by President Schurman:

Cornell University congratulates Haverford College on the completion of seventy-five years of exalted service in the World of Letters and Science. During these five and seventy years Haverford has always fostered a lofty idealism in the training of the youth of the Republic, and her rigorous, steadfast devotion to the finest type of educational practice, the achievements of her Faculty in the Ancient Classics, Mathematics, and English Literature have won her the applause and gratitude of her sister institutions of learning.

Cornell University sends this message of greeting and felicitation by the hands of its President, Jacob Gould Schurman, and joins to its greeting the devout wish that Haverford College may long continue to prosper and to exert its beneficent influence on future generations.

During the year invitations were received from the University of Leipzig and the University of Geneva asking Cornell University to be represented by a delegate at the celebration of the 500th and 350th anniversaries, respectively, of the creation of those institutions. The Faculty voted to request the President to represent the University on these occasions, or in event of his inability to serve, to appoint an alternate. It was further voted that a Committee of three be named by the President to draft addresses in reply to the foregoing invitations.

The President was also requested to represent the Faculty as its delegate at the ceremonies of the Darwin Centenary to be held at the University of Cambridge, England, in June.

The following addresses were prepared in response to the invitations mentioned above:

To the Rector and Senate of the University of Leipzig:

The Trustees and Faculty of Cornell University, through their President, Jacob Gould Schurman, send greetings:

We congratulate the great Saxon University on the noble history of her five hundred years, and rejoice in her grand achievements for the advance of human culture. We gratefully recognize our debt to German scholarship, and to Leipzig as a leader in the quest of truth. The ideals realized by Leipzig in education, science, and philosophy have elevated our own academic life, and the sound training which many of our professors have received from her distinguished scholars has exerted a vital influence upon the spirit and method of scientific investigation in this University and in this country.

TO
THE UNIVERSITY OF GENEVA
THE MOTHER OF PURITAN EDUCATION
WHOSE INFLUENCE
THROUGH HOLLAND AND SCOTLAND, THROUGH
ENGLAND AND NEW ENGLAND, THROUGH HUGENOT
AND WALOON, HAS WATERED ALL THE SOIL OF OUR
TRANSATLANTIC CULTURE
CORNELL UNIVERSITY
IN GRATEFUL VENERATION SENDS BY HER PRESIDENT
JACOB GOULD SCHURMAN
HER GREETINGS AND HER GODSPEED

To the University of Cambridge, celebrating the centenary of her illustrious son, Charles Darwin, creator of modern biological science, Cornell University, by her President, Jacob Gould Schurman, sends greetings. With you we rejoice in doing honor to the master interpreter of nature's laws, the Copernicus of the organic world, whose genius was disciplined in your ancient halls. May Cambridge long occupy her high historic place as the kindly nurse of creative minds!

On the 9th of December the University celebrated the tercentenary anniversary of the birth of John Milton. The exercises consisted of appropriate music, and readings from Milton's works by Professor Hiram Corson.

The University also arranged for exercises in connection with the Hudson-Fulton celebration on September 28, 29, and 30, 1909, and a special committee was appointed with power to provide for addresses on those days and to arrange details for the proposed celebration.

An invitation was received from Harvard University requesting that Cornell University be represented by a delegate or delegates at the inauguration of President Lowell on October 6 and 7, 1909, and it was voted to request the President to represent the University on that occasion, and to empower him to appoint such other delegates as he may see fit.

At a meeting of the University Faculty held June 12th, 1908, it was voted to recommend to the Board of Trustees that the statute constituting the University Faculty be amended so as to admit to membership the following: The Librarian and Assistant Librarian (Mr. A. C. White and Mr. W. Austen), the Registrar, and the Secretary of the University.

At a meeting held October 9th, 1908, a communication from the Board of Trustees stated that the recommendation of the University Faculty in regard to the enlargement of its membership had been approved, and on the 13th of November the following amended statute governing the University Faculty was communicated by the Board of Trustees:

"*The University Faculty:* The University Faculty consists of the President, who is *ex-officio* the presiding officer, the Professors and Assistant Professors of the University, including Professors and Assistant Professors of the New York State Veterinary College and of the New York State College of Agriculture, the Librarian and Assistant Librarians in charge of the Accession and Reference departments, the Registrar, and the Secretary of the University."

It had long been felt by members of the University Faculty that the use of the present seal of the University as a university emblem or device was open to many objections artistic and otherwise, and at the meeting of June 12, 1908, the President was requested to bring before the Board of Trustees at a convenient time the question of the advisability of the adoption by the Board of some official insignia or device for the University. The Board of Trustees referred the matter back to the University Faculty with the request for suggestions in regard to the same to be made to the Executive

Committee, and the President appointed the following Committee to investigate and report:

The Dean, Professors Woodruff, Hammond, Brauner, and Burr. This Committee arranged and announced a competition for an emblem or device and accepted a design submitted by Edwin Healy, a member of the Class of 1912 in the College of Civil Engineering. This design was afterwards accepted by the Faculty and referred to the Board of Trustees for their approval. In order that a fuller discussion of the design might be had the matter was again submitted to the University Faculty at the meeting of June 11th, and it was moved and carried that the former committee be reappointed to further consider and report on this subject. The Professor of Law, Professor Woodruff, declining to serve and the Dean retiring from office at the end of the present year, it was voted to request the Dean to name two further members of the Committee, and at the meeting of June 15th, the Dean named as such members Professor E. L. Nichols and Professor A. W. Smith, and appointed Professor G. L. Burr chairman of the committee.

I. ADMISSION BY CERTIFICATE

During the year 1908–1909, the number of schools from which students were received by certificate was 262 and the number of students presenting certificates was 510. The number of schools whose students had no mark below a pass was 77 and the number of students admitted with no mark below a pass was 248. It will be seen by a reference to my last report, page x, that in 1907–1908, the number of schools whose students had no mark below a pass was 102 and the number of students admitted with no mark below a pass was 252. It would seem that in 1908–9 the character of the work done by the schools was not as good as that of the previous years. But in 1908–9, in making up the reports, marks in drill and gymnasium were counted, which was not done in 1907–8. The record for 1908–9 is fully up to that of former years. Twenty schools warned in 1906–7, which have not since that date sent students to the University, were continued as on probation. Twenty-four schools received a general warning. Four were warned for special subjects and five were dropped from the list of accredited schools.

In my last report, p. x, I called attention to the movement for the creation of a board for accrediting schools in the Middle States and Maryland, and I discussed the manner in which an organization was effected and a constitution adopted. I stated that the constitution and rules of procedure would be submitted to the next meeting of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, and, if adopted, would be referred to the Colleges of that Association for their approval.

A second conference was held in Philadelphia on the 14th of November, 1908, which adopted the constitution and rules drawn up at the meeting in Philadelphia on May 9th, 1908, and resolved that the constitution and rules approved at this meeting be referred back to the Colleges and that, upon their ratification by not less than fifteen Colleges, another meeting be called to elect officers and put the business of the Board into operation. Since that time the following twelve Colleges and Universities have ratified the above mentioned constitution and rules: George Washington University, University of Rochester, Wells College, St. Stevens College, Woman's College (Baltimore), New York University, Lehigh University, Temple College (Philadelphia), Colgate University, Swarthmore College, Vassar College, and the College of the St. Frances Xavier.

Cornell University was represented at the conference of November 14, 1908, and a report of the action of the conference was submitted to the Committee on Admission by Certificate. No recommendation has yet been made by the Committee to the University Faculty to ratify the constitution and rules of the proposed College Entrance Certificate Board of the Middle States and Maryland. The difficulties which formerly attended the administration of our own system of admission by certificate have largely disappeared owing to changes in the form of certificate, etc., and the Committee felt reluctant to embark upon an undertaking which would involve the sacrifice of the independent action of the University. The matter has, therefore, been left in abeyance for the present.

The certificates and pass-cards issued by the Department of Education of the State of New York are accepted (if the mark be at least 75%) in place of University Entrance Examinations in all the subjects required for entrance which are covered by such credentials.

In 1907, the Department of Education of the State of New York reduced the passing mark for its examinations from 75% to 60% and the question arose whether Cornell University should continue to accept credentials marked 60% instead of 75%. A special committee was appointed by the President to consider the matter, and on the 12th of March, 1909, the chairman recommended "that during the years 1909 to 1913 inclusive, a Regents' credential, in order to be accepted in lieu of any entrance examination, must show a mark of at least 60%," and the recommendation was adopted. The Faculty at the same time directed the chairman to write a letter to the Educational Department of the State of New York saying, "that the arrangement by which Regents' credentials are to be accepted during the years 1909–1913 inclusive, is a provisional one and will not be continued after 1913 unless, upon trial, it shall be found that students admitted with below 75% are satisfactorily prepared," and it was further moved that a copy of this letter be placed in the files of the minutes of the Faculty.

II. COMMITTEE ON STUDENT AFFAIRS

The rules governing student organizations forbid students in their first year of residence to represent the University on any Varsity Athletic Team. On April 5th, 1907, the University Faculty passed a general rule allowing freshmen to play on Varsity Cricket and Association Football teams. The experience of a year has shown that this exception to the general rule was unwise, and on November 13, 1908, the Committee on Student Affairs recommended to the Faculty that hereafter no exception be made to the rule and that freshmen be not allowed to play upon University teams in any branch of sport.

Owing to the disorderly conduct of the Senior Banquet of 1908, it was felt by both Trustees and Faculty that some action should be taken to prevent the recurrence of such misconduct. The whole matter was referred to the Committee on Student Affairs. The chairman conferred with the officers of the present Senior Class in regard to the matter, and, in pursuance of the general policy of the Committee to work in cooperation with the students, no rules and regulations were laid down by the Committee for the Banquet of this year. The Senior Class fully realized the gravity of the situation and promised to avoid the disorders of previous years. The result was a Banquet highly creditable to the Class, which will, it is hoped, be an example to future classes. This is another illustration of the admirable spirit which prevails among our students and of their readiness to cooperate with the University authorities in the maintenance of order.

By action of the Trustees and Faculty the Committee on Student Affairs is responsible for discipline of the University and has always exercised its wide powers without any limitation or interference on the part of the various Colleges of the University. Difficulties have recently arisen, however, in regard to one point, namely, a question of jurisdiction in cases of fraud in examination. The University Faculty having entrusted to each College the management of its examinations, it has been understood that jurisdiction in cases of fraud in examination was conferred upon the separate Colleges and might by them be devolved upon courts or committees of students dealing with fraud in examination. In other words, the establishment of the so-called honor system in several of the Colleges has led to the administration of discipline by organizations of students in these Colleges. The Chairman of the Committee on Student Affairs has pointed out several times to the University Faculty that this action of the Colleges was unconstitutional and an infringement upon the powers of the Committee on Student Affairs, but no action has been taken in the matter by the University Faculty. This year, however, a case arose which illustrates the difficulties of the present situation. A student was found guilty of fraud in examination under the honor system of one of the Colleges and was debarred from further attendance in the College in which the fraud was supposed to have been committed. The student, as a matter of fact, was a member of another College in which the honor system did not prevail and was clearly not under the jurisdiction of the court which condemned him. The case was referred to the Dean of the second College and by him referred to the Committee on Student Affairs. The court which condemned the student declined to communicate its evidence to the Committee on Student Affairs on the ground that it could treat only with courts of other Colleges which had adopted the honor system. Fortunately the Committee on Student Affairs was able to secure independent evidence and to remove the student from the University. Such a condition of things is intolerable and results in inconsistent action discreditable to the discipline of the University. The Chairman of the Committee on Student Affairs reported the case to the University Faculty and asked to have the general matter referred to the Committee on University Policy, which was done. This Committee will consider the matter in all its bearings and suggest future action.

Other matters over which the Committee on Student Affairs has exercised general supervision, namely, the Freshman Banquet and Spring Day, took place without disorder. It may be said in conclusion that the behavior of the students during the present year as in the past has been in the main admirable. The Chairman of the Committee has investigated all cases of disorder committed in the town which have been brought to his notice through the Recorder and otherwise and has taken such action as each individual case seemed to demand. Considering the large number of students in residence at Ithaca the breaches of public order have been few in number and insignificant in character. As Chairman of the Committee, I cannot refrain in this my last report upon the subject from praising the fine spirit which prevails among our students and their readiness at all times to submit to proper restrictions and to cooperate with the Faculty in the maintenance of the good name of the University.

III. GRADUATE DEPARTMENT

In my report for 1907–1908, pp. xiv–xvi, will be found a detailed account of the legislation of the University Faculty in connection with the proposed establishment of a Graduate School under the administration of a separate faculty

The Committee on Graduate Work and the special Committee of Five on the Organization of a Graduate School made a report of progress to the University Faculty on June 12th, recommending that beginning with September, 1909, there should be created a Graduate School, with a faculty of its own, consisting of Professors who in each year are actively engaged in supervising the work of graduate students as members of special committees in charge of major or minor subjects, these Professors to be designated by the President as soon as possible after the registration of graduate students in each year. The Committee also recommended the creation of a new office, that of Dean of the Graduate School, the duties of that officer to be to serve as executive officer of the Graduate Faculty as above constituted and to conduct the work of the Graduate School under the direction of the Faculty of that School. This partial report of progress was accepted by the Faculty and the Committee continued, with the understanding that a final report should be presented as early as possible next year.

The two Committees above mentioned conferred in regard to a final report, and on March 12th presented the following report:

"*Resolved*, That the University Faculty be requested to recommend to the Board of Trustees the establishment of a Graduate School with its Faculty to have exclusive jurisdiction over all graduate work and advanced degrees.

"*Resolved*, .That the Faculty of this Graduate School shall, at the time of its organization, consist of those Professors who are actively engaged in supervising the work of graduate students as members of special committees in charge of major and minor subjects, and thereafter of such persons as it may designate with the approval of the Board of Trustees.

"*Resolved*, That the Faculty of the Graduate School shall have a Dean and a Secretary, the Dean to be elected annually by the Faculty and the Secretary to be appointed by the President of the University and to receive a salary for his services."

The second part of the report was amended so as to read:

"*Resolved*, That the Faculty of this Graduate School shall, at the time of its organization, consist of those Professors and Assistant Professors who are actively engaged in supervising the work of graduate students as members of special committees in charge of major and minor subjects, and thereafter of such persons or such classes of persons as it may designate with the approval of the Board of Trustees."

It was also voted as a substitute for the third resolution to leave the question of organization and officers in the Graduate School for the determination of the new Faculty when constituted. The entire report of the Committee as thus amended was then adopted and referred to the Board of Trustees for their action.

On the 16th of April a communication from the Executive Committee of the Board of Trustees informed the Faculty of the following action taken by the Trustees on the subject of a Graduate School:

"*Resolved*, (1) That the division of the University which has hitherto been designated the Graduate Department shall after Commencement Day, 1909, be designated the Graduate School;

(2) That the Faculty of the Graduate School shall consist of those Professors and Assistant Professors who are actively engaged in supervising the work of graduate students as members of the special committees in charge of major and minor subjects;

(3) That this Faculty shall have exclusive jurisdiction over all graduate work and advanced degrees;

(4) That legislation for the further organization of this Faculty await the recommendation of the Faculty itself. And the President is hereby authorized to convoke this Faculty and request them to consider this subject and also any matters relating to graduate work and advanced degrees which they may deem expedient; it being understood, however, that all matters relating to graduate work and advanced degrees for the year 1908–9 remain as heretofore in the hands of the University Faculty;

(5) That the new Faculty hereby created shall on Commencement Day, 1909, and thereafter, take over completely from the University Faculty all its functions and powers in relation to graduate work and advanced degrees and shall thereafter have exclusive jurisdiction over such matters."

The organization of the Graduate School under the statute does not properly belong to this report but will doubtless appear in the first report of the Dean of the Graduate School. In view of the creation of a new Graduate School it is unnecessary for me to discuss questions relating to graduate work which will now fall under the jurisdiction of the new School. But in order to complete my account of the legislation of the present year in regard to graduate work I shall call attention to the action taken by the Faculty on January 15th and March 12th. A communication was presented by the College of Agriculture introducing for the consideration of this Faculty the following resolutions from the College of Agriculture:

> "*Resolved,* That authority to offer a summer term for graduate students is granted to such departments of the University as may desire it; and that such students taking a summer term may be relieved from residence during an equal part of the University year. But no graduate student shall receive credit for more than one year's residence during any twelve consecutive months, and work done during the summer term must be under the personal direction of the member of the committee having charge of the work."

This resolution of the College of Agriculture was referred to the Committee on Graduate Work to consider and report. On the 12th of March on behalf of the Committee on Graduate Work to which on the 15th of January the resolution of the College of Agriculture was referred, the Dean reported the recommendation that in view of the re-organization of the Graduate Department action at present be postponed upon the question whether more than one year's residence during any twelve consecutive months shall be given to graduate students; further, that the requirement of previous application for permission to do work during the summer be waived for the present year; further, the Committee reported that it saw no objection to the College of Agriculture informing students who are doing work in the summer that they will not be recommended to receive credit for more than one year's residence for work done during any twelve consecutive months; and the report of the Committe was adopted.

Graduate students who are not candidates for a degree, as well as those who are, have been required to work under the direction of a special committee of the Faculty. The number of such students for the past seventeen years has been as follows:

'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09
4	1	11	14	18	14	35	20	22	19	18	12	11	21	18	13	10

The number of advanced degrees conferred during the years 1892–1909 was as follows:

	'92	93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	Tot.
A.M.	6	4	8	2	1	10	10	16	14	20	19	22	12	23	13	10	22	26	238
Ph.M	2	—	3	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	9
M.L.	1	3	2	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9
M.S.	7	6	10	7	12	6	6	3	—	—	—	—	—	—	—	—	—	—	57
M.C.E. ..	—	2	8	4	—	1	3	2	1	3	—	3	—	3	1	1	2	2	36
M.M.E ..	6	14	16	8	15	6	2	7	4	10	4	7	6	9	4	4	5	7	134
Ph.D. ...	8	4	16	13	14	11	23	7	19	20	23	20	13	21	19	19	22	34	306
D.Sc.	—	2	3	6	3	3	—	—	—	1	—	—	—	—	—	—	—	—	18
M.S. in Agr. ..	—	—	—	—	—	—	—	—	—	—	7	3	2	10	11	9	12	—	54
M.S. in Arch. .	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	3	1	9
Total....	30	35	66	44	48	37	44	35	38	54	53	56	34	67	49	44	66	70	870

The candidates for advanced degrees during the years 1896–1909, were distributed as follows:

I. By degrees:	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09
A.M.	3	14	19	31	35	45	40	55	40	50	41	54	65	56
Ph.M	6	—	—	—	—	—	—	—	—	—	—	—	—	—
M.L.	4	—	—	—	—	—	—	—	—	—	—	—	—	—
M.S.	9	3	1	—	—	—	—	—	—	—	—	—	—	—
M.S. in Agr. ..	5	7	9	7	4	13	12	8	12	17	26	24	35	28
M.S. in Arch .	1	1	1	3	1	—	—	2	3	3	2	2	2	1
M.C.E. ..	5	3	4	3	3	5	1	4	5	5	12	6	4	4
M.M.E ..	18	10	11	12	9	17	15	16	19	22	15	20	18	18
Ph.D. ...	58	79	89	93	100	100	100	95	94	85	116	117	110	129
D.Sc.	22	16	11	6	2	3	2	2	2	—	—	—	—	—
Total....	131	133	145	155	154	183	170	182	175	182	212	223	234	236

II. By subjects (each minor counted separately) during the years 1895–1909:

SUBJECT	MAJOR														MINOR													
	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08	'08-09	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08	'08-09
Semitic Languages	—	—	—	—	—	—	—	1	—	7	1	1	—	—	—	1	1	1	2	1	1	—	—	—	—	—	—	—
Greek, Comp. Phil.	2	5	5	7	8	6	6	6	3	—	4	4	2	3	15	13	14	18	17	16	11	14	14	11	9	9	9	11
Latin	4	3	4	4	4	7	5	7	9	3	5	6	6	7	3	3	3	6	7	7	5	8	3	4	3	6	4	3
Germanic Languages	4	4	1	2	2	3	4	7	3	2	3	4	4	6	5	5	7	8	7	8	9	9	6	3	4	6	3	2
Romance Languages	3	6	5	7	3	3	4	6	4	5	4	5	6	3	6	9	8	6	6	9	9	6	8	6	7	11	13	12
English	11	12	11	12	12	10	9	7	4	4	7	7	10	11	12	17	5	7	8	7	7	11	2	4	9	11	11	11
Philosophy	20	14	15	13	15	14	13	11	14	11	13	16	18	18	37	30	35	32	22	20	24	22	18	17	23	21	24	25
Science and Art of Educ. (formerly under Philos.)	—	—	—	—	—	2	3	6	—	2	1	1	12	5	—	—	—	—	—	7	5	4	1	3	—	1	10	14
History and	16	15	24	23	16	15	17	15	7	9	9	13	8	18	28	31	47	43	31	25	36	28	15	18	27	28	16	22
Political Science					9	7	6	5	4	6	12	9	5	18					12	10	9	7	10	13	18	17	19	31
Math. and Astron.	4	4	3	7	8	6	6	9	6	8	14	12	9	8	16	21	18	20	17	25	18	18	14	13	20	21	14	10
Physics	9	12	12	12	10	17	8	9	9	10	18	24	25	23	20	14	18	22	18	22	16	19	15	21	38	49	49	38
Chemistry	11	14	18	13	14	15	17	21	20	21	31	30	32	54	11	14	18	15	18	25	24	20	18	18	30	33	40	76
Botany, Arboriculture	6	7	7	9	9	10	10	13	10	12	13	12	6	12	14	15	19	15	20	22	19	21	18	20	29	23	20	31
Entomol., Gen. Inv. Zool.	1	2	1	3	8	14	9	9	5	10	10	14	8	15	3	4	3	10	11	15	18	16	10	15	16	25	19	26
Physiol., Vertebrate Zool.	1	2	1	—	1	2	3	3	4	6	7	1	3	3	3	3	1	2	4	1	1	2	5	4	8	6	2	7
Anatomy	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	2	2	—	1	—	—	—	—	—
Microscopy, Embryology	—	—	1	1	2	5	6	3	5	3	1	2	—	1	—	3	2	2	6	7	8	7	5	5	3	2	3	7
Geol., Paleont., Mineral.	2	4	4	2	4	3	5	6	4	7	3	5	7	9	8	11	13	11	11	10	10	14	9	15	13	9	10	12
Physical Geography	—	—	—	—	—	—	—	—	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	5	5	1
Medicine (Anatomy)	—	—	—	—	—	—	—	—	1	2	—	—	2	5	—	—	—	—	—	1	—	—	4	6	3	6	1	5
Agriculture	8	11	13	13	3	11	11	5	13	13	31	27	42	52	3	10	13	13	8	8	10	5	10	17	36	28	46	53
Horticulture	—	—	—	—	7	6	4	6	3	9	6	4	—	—	—	—	—	—	4	6	4	3	3	4	3	2	—	—
Forestry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	—	—	—	—	—
Veterinary Medicine	—	—	1	1	2	—	2	1	1	1	4	—	—	2	—	—	3	2	3	3	3	8	4	1	7	1	—	1
Architecture	1	1	1	3	1	—	—	2	2	1	3	2	3	3	—	1	1	3	1	1	—	2	1	1	1	2	1	2
Civil Engineering	8	4	5	4	6	8	4	6	6	8	14	7	5	4	10	5	5	6	9	8	6	7	11	12	13	9	4	7
Mechanical Engineering	20	13	12	15	10	19	18	19	17	19	17	20	20	23	19	16	11	14	10	17	19	16	13	17	16	17	18	18
Law	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—

III. Actual number of students in each subject during the years 1895–1909.

SUBJECT	'95-'96	'96-'97	'97-'98	'98-'99	'99-'00	'00-'01	'01-'02	'02-'03	'03-'04	'04-'05	'05-'06	'06-'07	'07-'08	'08-'09
The Semitic Languages and Literatures	—	1	1	1	2	1	1	1	—	—	1	1	—	—
Greek and Comparative Philology (including Classical Archæology)	8	6	10	14	16	14	11	12	12	10	9	12	8	10
Latin	5	4	6	10	11	13	9	15	14	11	8	12	10	9
The Germanic Languages	5	8	7	10	8	10	11	13	10	5	7	8	7	4
The Romance Languages	5	8	8	9	7	9	10	9	8	6	8	10	12	9
English	16	19	12	14	13	14	13	15	4	6	9	14	15	12
Philosophy	22	19	22	21	22	18	19	17	18	14	16	19	21	22
Science and Art of Education (formerly under Philosophy)	—	—	—	—	—	9	7	9	2	5	1	2	11	15
History, Ancient and Mediæval	8	5	7	11	4	11	18	22	11	16	26	3	6	11
Modern	11	14	21	22	27	15	20		8			16	10	12
American	8	9	15	12	15	14	14	15	9	10	11	10	8	12
Political Science and Social Science	12	9	15	12	13	14	9	7	9	14	17	18	21	25
Mathematics and Astronomy	14	18	20	18	18	23	18	21	18	14	23	24	17	12
Physics	21	17	19	24	18	22	18	21	22	20	33	41	42	32
Chemistry	13	15	19	14	17	20	21	26	26	23	35	33	35	63
Botany and Arboriculture	13	14	15	16	17	19	15	19	13	18	25	20	19	29
Entomology and General Invertebrate Zoology	4	6	4	10	14	22	20	18	18	17	18	28	19	26
Physiology, Vertebrate Zoology, and Neurology	3	1	2	3	5	2	4	5	8	9	13	7	4	8
Anatomical Methods and Human Anatomy	—	2	1	—	—	2	2	—	—	—	—	1	—	—
Microscopy, Histology, and Embryology	3	3	3	3	8	12	13	10	10	8	4	4	3	7
Geology, Paleontology, and Mineralogy	7	8	11	10	11	10	10	12	10	13	12	11	11	13
Physical Geography	—	—	—	—	—	—	—	—	—	—	—	5	6	3
Medicine (Anatomy)	—	—	—	—	—	1	—	—	3	6	5	6	3	7
Agriculture	4	7	10	10	7	13	14	9	15	19	36	31	44	56
Horticulture	5	10	12	11	9	11	8	7	4	10	8	4	—	—
Forestry	—	—	—	—	—	2	—	2	—	—	—	—	—	—
Veterinary Medicine	—	—	2	1	2	3	5	9	5	2	6	1	1	3
Architecture	1	1	1	3	1	1	—	2	3	1	3	2	4	3
Civil Engineering	10	5	6	5	7	8	6	7	11	12	19	11	6	7
Mechanical Engineering	23	16	14	17	11	22	23	21	20	20	21	21	21	24
Law	—	—	—	—	—	—	—	—	—	—	—	1	—	—

During the past twenty-one years, 2,045 graduates of 236 institutions have been admitted to graduate work, distributed as indicated in the following table:

Acadia	7
Adelphi College	3
Adelbert	3
Aix Marseill Univ. (France)	1
Alabama Agr. and Mech. Coll.	2
Albion	3
Alfred	3
Allegheny	3
Amherst	10
Anatolia	1
Arkansas	5
Armour Inst. of Tech	1
Baker Univ	1
Barcelona Coll	1
Barnard College	1
Bates	3
Beloit	2
Bengal Agr. College	1
Bengal Presidency College	1
Berea College	2
Berlin, Univ. of	1
Birmingham Univ	1
Boston	4
Bowdoin	2
Brigham Young	2
Brown	16
Bryn Mawr	2
Buchtel	6
Bucknell	4
California	21
Cambridge University	2
Campbell	1
Cape of Good Hope	1
Capitol	1
Carleton	2
Case School	1
Chaddock	1
Cheshire Agr. and Hort. Coll. (England)	1
Chicago, Univ. of	7
Cincinnati	3
Clark University	1
Colgate	8
Colorado, Univ. of	4
Colorado State Agr. Coll	1
Colorado School of Mines	1
Columbia	15
Columbia School of Law	1
Cooch-Behar Coll. (India)	1
Cornell College	3
Cornell University	942
Dalhousie	24
Dartmouth	6
Davidson	3
Denison	1
Denver	1
DePauw	21
Drake Univ	1
Duff College (India)	1
Earlham	7
Ecole Nationale (France)	1
Elmira	2
Erlangen (Germany)	1
Fargo College	1
Franklin	3
Franklin and Marshall	2
Furman University	2
Gallaudet	1
Georgia, Univ. of	2
Geo. Washington Univ	1
General Assembly's Institute (India)	2
Ghent, State Univ. of	1
Greenville College	1
Halle	3
Hamilton	9
Hamline	1
Hannover Tech. Hochschule	1
Harvard	21
Harvard Annex	1
Harvard (Lawrence Scientific)	1
Haverford	3
Hillsdale	4
Hobart	3
Illinois	18
Illinois College	1
Illinois Wesleyan	3
Imperial Royal Higher Gym.	1
Indiana	54
Indianapolis	4
Institute Nat. Agronomique	1
Iowa Agr	7
Iowa College	6

III. Actual number of students in each subject during the years 1895–1909.

SUBJECT	'95-96	'96-97	'97-98	'98-99	'99-00	'00-01	'01-02	'02-03	'03-04	'04-05	'05-06	'06-07	'07-08	'08-09
The Semitic Languages and Literatures	—	1	1	1	2	1	1	1	—	—	1	1	—	—
Greek and Comparative Philology (including Classical Archæology)	8	6	10	14	16	14	11	12	12	10	9	12	8	10
Latin	5	4	6	10	11	13	9	15	14	11	8	12	10	9
The Germanic Languages	5	8	7	10	8	10	11	13	10	5	7	8	7	4
The Romance Languages	5	8	8	9	7	9	10	9	8	6	8	10	12	9
English	16	19	12	14	13	14	13	15	4	6	9	14	15	12
Philosophy	22	19	22	21	22	18	19	17	18	14	16	19	21	22
Science and Art of Education (formerly under Philosophy)	—	—	—	—	—	9	7	9	2	5	1	2	11	15
History, Ancient and Mediæval	8	5	7	11	4	11	18	22	11	16	26	3	6	11
Modern	11	14	21	22	27	15	20		8			16	10	12
American	8	9	15	12	15	14	14	15	9	10	11	10	8	12
Political Science and Social Science	12	9	15	12	13	14	9	7	9	14	17	18	21	25
Mathematics and Astronomy	14	18	20	18	18	23	18	21	18	14	23	24	17	12
Physics	21	17	19	24	18	22	18	21	22	20	33	41	42	32
Chemistry	13	15	19	14	17	20	21	26	26	23	35	33	35	63
Botany and Arboriculture	13	14	15	16	17	19	15	19	13	18	25	20	19	29
Entomology and General Invertebrate Zoology	4	6	4	10	14	22	20	18	18	17	18	28	19	26
Physiology, Vertebrate Zoology, and Neurology	3	1	2	3	5	2	4	5	8	9	13	7	4	8
Anatomical Methods and Human Anatomy	—	2	1	—	—	2	2	—	—	—	—	1	—	—
Microscopy, Histology, and Embryology	3	3	3	3	8	12	13	10	10	8	4	4	3	7
Geology, Paleontology, and Mineralogy	7	8	11	10	11	10	10	12	10	13	12	11	11	13
Physical Geography	—	—	—	—	—	—	—	—	—	—	—	5	6	3
Medicine (Anatomy)	—	—	—	—	—	1	—	—	3	6	5	6	3	7
Agriculture	4	7	10	10	7	13	14	9	15	19	36	31	44	56
Horticulture	5	10	12	11	9	11	8	7	4	10	8	4	—	—
Forestry	—	—	—	—	—	2	—	2	—	—	—	—	—	—
Veterinary Medicine	—	—	2	1	2	3	5	9	5	2	6	1	1	3
Architecture	1	1	1	3	1	1	—	2	3	1	3	2	4	3
Civil Engineering	10	5	6	5	7	8	6	7	11	12	19	11	6	7
Mechanical Engineering	23	16	14	17	11	22	23	21	20	20	21	21	21	24
Law	—	—	—	—	—	—	—	—	—	—	—	1	—	—

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Alfred	3
Allegheny	3
Amherst	10
Anatolia	1
Arkansas	5
Armour Inst. of Tech.	1
Baker Univ.	1
Barcelona Coll	1
Barnard College	1
Bates	3
Beloit	2
Bengal Agr. College	1
Bengal Presidency College	1
Berea College	2
Berlin, Univ. of	1
Birmingham Univ	1
Boston	4
Bowdoin	2
Brigham Young	2
Brown	16
Bryn Mawr	2
Buchtel	6
Bucknell	4
California	21
Cambridge University	2
Campbell	1
Cape of Good Hope	1
Capitol	1
Carleton	2
Case School	1
Chaddock	1
Cheshire Agr. and Hort. Coll. (England)	1
Chicago, Univ. of	7
Cincinnati	3
Clark University	1
Colgate	8
Colorado, Univ. of	4
Colorado State Agr. Coll	1
Colorado School of Mines	1
Columbia	15
Columbia School of Law	1
Cooch-Behar Coll. (India)	1
Cornell College	3
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Dalhousie	24
Dartmouth	6
Davidson	3
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Denver	1
DePauw	21
Drake Univ.	1
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Earlham	7
Ecole Nationale (France)	1
Elmira	2
Erlangen (Germany)	1
Fargo College	1
Franklin	3
Franklin and Marshall	2
Furman University	2
Gallaudet	1
Georgia, Univ. of	2
Geo. Washington Univ	1
General Assembly's Institute (India)	2
Ghent, State Univ. of	1
Greenville College	1
Halle	3
Hamilton	9
Hamline	1
Hannover Tech. Hochschule	1
Harvard	21
Harvard Annex	1
Harvard (Lawrence Scientific)	1
Haverford	3
Hillsdale	4
Hobart	3
Illinois	18
Illinois College	1
Illinois Wesleyan	3
Imperial Royal Higher Gym.	1
Indiana	54
Indianapolis	4
Institute Nat. Agronomique	1
Iowa Agr.	7
Iowa College	6

Iowa State University	10
Iowa State College	2
Iowa Wesleyan	1
Japan Imperial Univ	2
Johns Hopkins	9
Kansas Agr	7
Kansas State Univ	17
Kentucky State College	1
Knox	6
Lafayette	5
Lake Forest	3
Lawrence	1
Lehigh	8
Leipzig	1
Lombard	1
London	2
Luther	3
McGill	6
McKendree	1
Maine, Univ. of	8
Manitoba	7
Mason (Birmingham, Eng.)	1
Massachusetts Agr	9
Massachusetts Inst. of Tech.	9
Mercer University	1
Miami University	2
Michigan Agr	11
Michigan, Univ. of	33
Middlebury Coll	1
Milton	1
Minnesota	19
Missouri School of Mines	1
Missouri State	19
Moore's Hill College	1
Mt. Allison	5
Mt. Holyoke	5
Mt. Union	1
Napa	1
Nashville	3
Nebraska	19
Nebraska Western Univ	1
Newberry	1
New Brunswick, Univ. of	1
Newcomb	3
New Hampshire College	4
New Hampshire Agr	1
New York, Coll. of the City of	5
North Carolina	8
North Carolina Agr. Coll	4
North Dakota, Univ. of	4
Northwestern Univ	5
Notre Dame	1
Oberlin	10
Ohio State	35
Ohio University	5
Ohio Wesleyan Univ	4
Ohio Northern Univ	2
Oklahoma, Univ. of	1
Ontario Agr. Coll	1
Oregon State Univ	2
Oregon Agr. College	2
Ottawa	1
Otterbein	1
Oxford	1
Pacific Univ. (Calif.)	1
Pacific Univ. (Oregon)	1
Penn Coll. (Iowa)	2
Pennsylvania Coll. for Women	1
Pennsylvania State	3
Pennsylvania, Univ. of	5
Pennsylvania, West. Univ. of	2
Pine Hill Theol. Sem	1
Pomona College	1
Presbyterian College of S.C.	1
Princeton	9
Purdue	15
Queen's Univ. (Kingston, Can.)	3
Randolph-Macon	1
Rensselaer Poly. Inst	1
Rochester	9
Rockford Coll	1
Rose Poly. Inst	3
Royal Univ. of Ireland	1
Rutgers	6
St. Andrews (Scotland)	1
St. Lawrence Univ	2
St. Petersburg (Russia) Real Gymnasium	1
Scio College	1
Sibpur Agr. Coll. (India)	3
St. Stephens College	1
Smith	25
South Carolina	3
South Dakota Agr	3
Southern California	2
Southwestern Univ. (Texas)	1
St. Olaf	1
Stanford	14
Stevens Inst	7
Susquehanna Univ	2
Swarthmore	4
Sydney Univ. (New So. Wales)	2

Syracuse	14
Texas	7
Texas Agr	4
Tokio University	4
Toronto	25
Trinity Coll. (N. C.)	1
Trinity Coll. (Toronto)	1
Tulane	1
Union	3
U. S. Naval Academy	4
Ursinus College	1
Utah University	1
Utah Agr. Coll.	4
Vanderbilt	2
Vassar	21
Vermont	3
Victoria	1
Vienna (Austria)	1
Virginia	1
Virginia Agr. and Mech. Coll.	2
Virginia Poly. Inst.	3
Wabash	10
Wake Forest College	5
Washington Coll. (Md.)	1
Washington Univ	3
Wellesley	15
Wells	3
Wesleyan	10
Westminster	2
West Virginia, Univ. of	4
Wheaton	2
Washington State Coll	2
Western Reserve	2
Williams	5
Wilson	1
Wisconsin	22
Wittenberg	1
Woman's College, Baltimore	3
Wooster	3
Worcester Poly. Inst.	6
Yale	11
Yale Theological Sem	1
Yale (Sheffield)	5
Zurich Polytechnium	1

IV. SCHOLARSHIPS AND FELLOWSHIPS

The full number of eighteen University Undergraduate Scholarships was filled at the examination in September, 1908. Two Scholarships have been vacated during the year for failure to maintain a high standard of scholarship, and permission was granted to one holder of a Scholarship to be absent during the year on account of illness. Similar permission was granted to another Scholarship holder to be absent for a year in order to earn the means for continuing his University course.

Ever since the new entrance requirements to the College of Arts and Sciences and the increase in the entrance requirements for other Colleges went into effect, the Committee on University Undergraduate Scholarships has felt that some change was necessary in the number and character of the subjects of examination. In order to readjust the former plan to the new conditions made necessary by the changes in the entrance requirements above mentioned, the Committee reported on May 14th the following, to take the place of the last part of Section 5, page 68 of the Register for 1908–9:

"These Scholarships will be awarded on the basis of examinations n three of the seven following subjects:

(a) English. Entrance requirement. See p. 37.

(b) Greek. Greek Grammar and Xenophon; Composition and Homer. See p. 38.

(c) Latin. Latin Grammar and Cæsar; Composition and Cicero; Virgil. See p. 39.

(d) French. Advanced entrance requirement. See p. 41.

(e) German. Advanced entrance requirement. See p. 40.

(f) Elementary Mathematics. Algebra through Quadratics, and Plane Geometry. See pp. 44–46.

(g) Advanced Mathematics. Solid Geometry, Advanced Algebra, and Plane Trigonometry. See pp. 45–46.

In choosing three of these seven subjects, every candidate must take English and at least one of the other four languages; and any candidate who does not select either Latin or Greek must take Advanced Mathematics."

The recommendation was adopted and it was voted that the same go into effect in 1910. It will be noticed that the above change does not effect the principle by which scholarships have been awarded hitherto; it simply adds a new subject, English, which must be taken by every candidate.

V. FACULTY LEGISLATION

On the 22d of June, 1907, the Executive Committee of the Board of Trustees passed the following resolution:

"*Whereas,* large numbers of students leave the University in January and June a considerable period earlier than the dates indicated in the University Calendar; and

Whereas, it is desirable that students in all Colleges should, in the matter of holidays, be treated alike; therefore,

Resolved, That the University Faculty be requested to consider and report the best means of remedying the evils complained of."

This resolution was transmitted to the University Faculty at the meeting of December 13th, 1907, and was referred to the several Faculties to consider and report. During the year 1908, communications were received from the Colleges of Agriculture, Architecture, Civil Engineering, Sibley College, and the Ithaca branch of the Medical College in regard to the question referred to the Faculty by the Executive Committee, and these communications were placed on file. No report, however, seems to have been made to the Executive Committee of the Board of Trustees, and on the 9th of October, 1908, the Executive Committee renewed its request for a report upon the inquiry made by the Board on June 22d, 1907. This communication was referred to the Committee on University Policy. On December 1st, 1908, the Committee on University Policy submitted the following report:

"The Committee on University Policy met November 19th, to consider the following communication from the Executive Committee of the Board of Trustees:

"'*Whereas*, large numbers of students leave the University in January and June a considerable period earlier than the dates indicated in the University Calendar, and

"'*Whereas*, it is desirable that students in all Colleges should, in the matter of holidays, be treated alike; therefore,

"'*Resolved*, That the University Faculty be requested to consider and report on the best means of remedying the evils complained of.'"

"There were present at the Committee's session the following Deans and Directors: Haskell, Hull, Irvine, Kerr, Martin, Smith, and the Dean of the University Faculty.

"After consideration of the communication from the Executive Committee, it was voted, with the Dean of the Law School dissenting to recommend to the University Faculty this resolution:

"'*Resolved*, That each course in every College of the University be continued in its customary hours to the last scheduled day of the term, and that no term standing be reported for any student not present at the last regular exercise of the course, unless the student has an official leave of absence covering the date of that last exercise.'"

To this recommendation of the Committee on University Policy, the Professor of Law, Professor Irvine, then introduced the following resolutions as an amendment:

"*Resolved*, That the action of the special Faculties be reported to the Board of Trustees, with the statement that, in the opinion of the University Faculty, any system that would require uniformity of action by the special Faculties and various Departments of the University, in order to prevent any student from leaving the University before the last day of the term, would not be feasible, and would result in detriment to the educational work of some of the Colleges and Departments:

"*Resolved*, Further, that so far as the matter to which the communication of the Board of Trustees has called the attention of the University Faculty is subject to improvement, the University Faculty request the various Colleges and Departments of the University to limit and keep to the minimum such evils as may still exist or hereafter arise," and it was voted to substitute the resolutions of Professor Irvine for the report of the Committee.

The Professor of Law, Professor Woodruff, thereupon moved that the reports of the special Faculties on the communication of the

Board of Trustees now in the files of this Faculty be returned to them, and that these Faculties, together with such other Faculties as have not heretofore reported, be requested to submit reports at the next regular meeting of the University Faculty, to wit: on the eleventh instant, these reports to recite the extent of the evils complained of in the communication of the Board of Trustees, the methods proposed for their abatement, and the reasons for such action as may be taken or suggested, and it was so voted.

In compliance with the above request the following special Faculties on December 1st, 1908, presented reports on the subject of students leaving the University in January and June earlier than the dates indicated in the University Calendar:

1. College of Arts and Sciences.
2. College of Law.
3. College of Medicine.
4. New York State Veterinary College.
5. New York State College of Agriculture.
6. College of Architecture.
7. College of Civil Engineering.
8. Sibley College.

It was then voted that these reports be transmitted to the Board of Trustees by the President of the University, together with the resolution which called them forth.

The question of the length of terms and vacations is intimately connected with the above question and much time has been devoted by the University Faculty both in regular and special sessions to the discussion of changes in the present calendar of the University. The discussion may be said to have begun with a communication from the Executive Committee of the Board of Trustees presented February 12th, 1909, requesting information regarding the length of term time, including teaching and examinations, in the leading universities of the country, and the President appointed a Committee of three to prepare the statistics requested by the Executive Committee and to report.

The President of the University on the 12th of March, 1909, outlined a plan for the reconstruction of the University Calendar and gave notice that he would present the same for the Faculty's consideration at the next regular meeting. At that meeting, April 16, 1909, the Chairman of the Committee appointed by the President to prepare statistics regarding the length of term time in the leading universities, submitted a report, and it was voted that the same be made a special order for the next regular meeting of the Faculty or for a special meeting to be called by the President. It was also voted that the same action be taken in regard to a plan of calendar revision submitted by the President at the meeting of March 12th. At a special meeting of the Faculty held on the 26th of April the tentative plan of the President for the revision of the calendar of the University, together with the report of the special Committee on Calendar Statistics, was submitted for consideration, and the following resolutions were adopted:

> "*Resolved*, That the question of calendar be referred back to the Committee with instruction to report a calendar year with the number of days devoted to instruction and examinations not less than the average number of days so employed in the twenty-one universities named in the present report; and that the terms be as nearly equal as is practicable.
>
> "Further, that the Committee report at least one plan providing for a spring vacation extending from Wednesday to the following Monday.
>
> "Further, that the Committee in making up its report on possible calendars omit all one-day holidays except Thanksgiving day and Founder's day.
>
> "Further, that the Thanksgiving recess be limited to one day."

The Faculty also appointed as a Committee to carry out the provisions of this resolution, Professors Fetter, Dennis, and Hammond. This Committee submitted its report at the meeting of the 14th of May and at a special meeting of the University Faculty held May 17th, the Faculty adopted the following resolutions in regard to the calendar:

> "*Resolved*, (1) That the Easter recess be abolished; (2) that instruction begin on a Thursday; (3) that plan A of the report of the Committee on Calendar be adopted; (4) that Commencement be held on a Wednesday instead of on a Thursday; (5) that the calendar go into effect the next academic year, excepting the provision for the beginning day of instruction which shall be October 1st, as announced in the current Register; (6) that the subject of calendar be referred back to the Committee to prepare a calendar, exactly dated, for a series of years.

On the 11th of June the following communication was received from the Executive Committee of the Board of Trustees:

> "A petition signed (it is stated) by over 2000 students was presented, in which the petitioners, while offering no objections to the proposed lengthening of the academic year, begged that the proposed abolition of the spring recess be not adopted; and it was, on the motion of President Schurman,

"*Resolved,* In view of the regard and loyalty which the students have always evinced for the welfare of the University and the good relations which have invariably subsisted between the students and the Faculty and Trustees, that this petition be referred to the Faculty for their consideration, and that pending the receipt of a report from the Faculty thereupon no further action be taken by the Executive Committee on the subject of the proposed Calendar recently submitted to it by the Faculty," and it was voted to file the communication of the Executive Committee and to refer the question of the Calendar back to the special Committee to consider further and report at the first regular meeting of the next academic year.

Among minor matters which have engaged the attention of the University Faculty during the past year may be mentioned the question of academic dress for Commencement Day. A communication from the Executive Committee of the Board of Trustees presented April 16th, 1909, informed the Faculty of recommendation made by the Committee on Academic Dress, which Committee requested the Faculty to consider the wisdom and expediency of having caps and gowns worn by the members of the instructing staff on Commencement Day. After discussion the Faculty "voted that it does not deem it desirable to recommend to the members of the instructing staff any official costume for the Commencement ceremonies."

At the meeting of May 17th, 1909, the Faculty voted that examination reports be handed to the Registrar within 4 days subsequent to the examinations covered by the report.

On the 16th of April, 1909, the College of Civil Engineering and the College of Arts and Sciences notified the Faculty of their adoption of a Five-Year Arts-Civil Engineering Course, and the communication was ordered to be filed.

A similar communication was received from the College of Arts and Sciences regarding the establishment of a Five-Year Arts-Mechanical Engineering Course and the same action was taken.

On the 11th of December, 1908, a petition was presented from certain Porto Rican students asking to be excused from Military Drill on the ground that they were aliens. The Dean was directed to correspond with the War Department and with other land-grant colleges in regard to their practice, and on the 13th of January, 1909, the Dean presented the results of his correspondence, and it was moved that the petition of the Porto Rican students to be excused from drill be returned not granted.

At the meeting of June 11th, the regulations covering literary prizes were amended so as to require that

"The successful essay shall be deposited by the Secretary of the

University Faculty in the University Library and the library rules regarding the circulation of manuscripts shall apply to prize essays."

In submitting this my seventh and last annual report as Dean of the University Faculty I cannot refrain from expressing my grateful appreciation of the aid and support which I have always received from the President of the University, from my colleagues in the Faculty, and from the Registrar of the University. In another part of my report I have spoken in high terms of the admirable behavior of the students of the University. I may add here that their courteous behavior and willing cooperation have lightened the labors of the Dean and left a pleasant memory which he can never forget.

Respectfully submitted,
T. F. Crane,
Dean of the University Faculty.

APPENDIX III

REPORT OF THE DEAN OF THE FACULTY OF ARTS AND SCIENCES

To the President of the University:

Sir:—As Dean of the Faculty of Arts and Sciences I have the honor to submit a report for the year 1908–09.

At their November meeting the Faculty unanimously adopted the following minute upon the departure of former Dean Hill to assume the Presidency of the University of Missouri:

> "The Faculty of the College of Arts and Sciences desire to record their high appreciation of the services rendered by Dr. A. Ross Hill as Professor of Education and Dean of the College. By his courtesy and fairness as well as by his intelligent counsel Professor Hill gained the confidence and respect of all his colleagues, who gladly join in extending to him their best wishes for his success in his new field of work."

The year of Dean Hill's service was, as his report for 1907–08 (p. xxv) remarks, "an active one in Faculty legislation." Many new provisions were then adopted, and the year covered by the present report has been largely devoted to putting them into force and testing their operation.

Of the working of the new entrance requirements (Report for 1907–8, pp. xxv–xxvii) it is as yet too early to speak with confidence, since they will not become solely operative, to the exclusion of the old requirements, until September, 1910. But present indications are that candidates for admission to the College of Arts and Sciences, at least, will, in general, meet the new requirements in full and without especial difficulty.

The vocational courses adopted last year (Report, 1907–1908, p. xxxi–xxxii) have likewise had, as yet, no sufficient trial. Indeed provision still remains to be made for such instruction in the "Elements of Law" as two of the vocational courses contemplate.

NEW SYSTEM OF REGISTRATION

The new system of registration (Report, 1907–1908, pp. xxxii–xxxiii), on the other hand, was worked in September, in February, and in May, and some, at least, of its merits are already manifest. Under the old system a teacher might not be certain, until the tenth day of the term, what students planned to take his classes. The new requirement that students file at the Dean's office, two weeks before the end of each term, a list of the studies elected for the term following has now made it possible to furnish each teacher in advance with an official list of his students. He is thus given time to plan his advanced courses with reference to the personnel of his classes and can begin his elementary courses without delay.

During the first ten days of instruction students who obtain the Dean's approval are, indeed, allowed to change their registration, and in fact I approved virtually all the changes asked for in that period. Their number was not excessive in either term. Whether the lists filed last May will need as few changes next October, after a summer's experience and reflection, remains to be seen.

The number of students who withdrew, after the first ten days, from courses for which they had registered, was small. This cannot be due to any stiffness in administering the rule which demands a grave reason, and the Dean's consent, for such withdrawal, since consent was given almost as often as asked for. In some cases, where student and instructor agreed that success in the courses was hopeless, consent was given only with the proviso that withdrawal should be construed as a confession of failure. But in most cases, particularly where ill health was alleged, unconditional cancellation of the registration was approved.

That under these circumstances the number of freshmen changing their registration or dropping courses was notably small is to be attributed, I think, less to the new rules about registering than to the new conditions under which students made choice of their studies. For some years past, to be sure, many members of the Faculty, including the Dean, have kept long office hours during the registration period, and have freely given advice to such students as chose to ask them what courses to elect. But not many students asked. The Administrative Board for Freshmen and Sophomores resolved, therefore, to make advice on that point more easily accessible to all students this year, and especially to freshmen. In the large room opposite the Dean's office a temporary information bureau was established. Some twenty members of the Faculty, representing nearly all subjects taught in the College, were there, ready to give advice. Each student, upon coming to the office for his study card, was told that just across the corridor he could get help in deciding for what courses to register. For three days the bureau was crowded. Consultation was, in many cases, long and earnest, and the opinion seemed to be general, both in the Faculty and among the students, that the device had worked well. It will be used again next September.

CODIFICATION OF RULES

The instructions which the Faculty gave a special committee on May 8th, 1908, "to have all rules of this Faculty codified and published for the benefit of both students and Faculty" (Report, 1907–1908, p. xxxv), was carried out with the cooperation of the Administrative Board. During the summer the committee went through the minutes of the old General Faculty from the beginning of the University, and of the Faculty of Arts and Sciences since its organization in 1896, and on the 2d of October, 1908, the following report was made to the Faculty (Minutes ii, 55):

> "Your committee, after compiling such rules as they could discover, learned that the Administrative Board in charge of Freshmen and Sophomores was planning to publish a pamphlet for the information of new students, which should contain most of the rules. Being uncertain whether their compilation was complete and desirous of saving unnecessary expense, your committee turned its material over to the Board, and accordingly the rules, as your committee supposes them to be, are included in the Board's pamphlet, or in the supplement thereto for the information of the Faculty, copies of both of which have been mailed to each member of your body."

ADVANCED STANDING FOR WORK DONE IN PREPARATORY SCHOOLS

In respect of advanced standing for work done in preparatory schools the Faculty went a step beyond their action last year (Report, 1907–1908, pp. xxvii–xxix), and instead of leaving with a committee the decision whether or not "the excess of the student's preparatory work over fifteen units" should count him towards graduation, they voted, 7th May, 1909, that

> "Credit towards the degree of Bachelor of Arts for work done in preparatory schools be granted only on the passing of examinations set for that purpose by the departments concerned."

Similar action has since been taken by the Faculties of the other Colleges, and beginning in September, 1910, credit examinations upon preparatory school work will be offered at the same times and places as the entrance examinations in the various subjects.

The whole history of surplus entrance credit for the A.B. degree at Cornell is not without its interest as an illustration of the growth and establishment of academic customs. It is clear that the entrance examinations were originally designed as tests of a student's fitness to begin a course in the University, not at all as criteria of his fitness to graduate from it. And so long as the entrance requirements to the Arts course were perfectly specific—the elementary subjects plus Greek and Latin—they served their original and proper purpose only: no candidate could get surplus entrance credit, consequently none could ask to have it counted towards his A.B. degree. The possibility of surplus entrance credit arose, however, as soon as entrance options appeared. For example, the candidate for B.S. was allowed, some twenty-five years ago, to offer either French or German for entrance. A few candidates passed the entrance examinations in both subjects, and to such, "by special arrangement," credit for the surplus was given towards the 180 hours then required for the degree. In 1900, the opportunity for claiming such credit was vastly enlarged by the consolidation of the various courses in this College. Thenceforward only the A.B. was to be granted. But the course leading to that degree might be entered by any of the various doors which had previously given admission to the several courses then suppressed. And so far has the diversification of entrance requirements since proceeded, that the necessary fifteen units of our "new" entrance requirements may be elected from a list of no less than thirty-four; so that, although no student has in fact ever received more than 30 hours of surplus entrance credit for preparatory school work, such credit is nevertheless theoretically possible at present in nineteen units, equivalent to more than 100 of the 120 required for the degree. This condition of affairs is not the result of deliberate design. It has grown up incidentally, and has overcome us like a summer's dream without our special notice.

Little reflection is required to perceive that preparatory school work differs from college work in several respects: frequently in the capacity of the teachers, generally in the equipment of the school, invariably in the age of the student. These differences, it is clear, are more weighty in some subjects than in others, and are particularly important where, in addition to laboratory practice, a certain variety of experience and maturity of intellect are necessary. Accordingly the Faculty has attempted, at the request of certain departments, to deny surplus entrance credit for preparatory school work in their subjects, the Register declaring explicitly (pp. 184, 197) that entrance credit in Physics and Chemistry does not carry with it credit for the beginning college courses in those subjects, and that such credit can be secured only by passing a special examination. But experience has shown conclusively that under our new entrance requirements, the intent of these provisions is easily defeated so long as surplus entrance credit without examination is allowed in other subjects. Suppose, for example, that a candidate presents a school certificate covering seventeen entrance units, two of them in Physics and Chemistry. If denied credit for these as surplus, he whips the devil around the stump by claiming Physics and Chemistry as two of his five elective units, thus releasing two of German (say, or of Mathematics, or of Latin). For these he is given twelve hours surplus credit towards his A. B. because full entrance German (for example) is considered the equivalent of college German 1 and 2.

Under these circumstances it seemed necessary either that all effort be abandoned to limit preparatory school credit towards the degree in any subjects whatever, or else that the effort be made effective by requiring a special examination upon all preparatory school work for which credit towards the degree is desired.

Another argument in favor of requiring such examinations from all freshmen who ask surplus entrance credit arises from the fact that we do not exempt from an examination for credit even the students in our own classes, whose daily work we know, unless their class standing is at least 85 per cent. That being our practice, it seemed unfair to the freshmen taking their classes in the College that we should continue to exempt from examination in the same subjects a number of other freshmen, of whose work in classes we knew only that they had been certified by their teachers as passing, and in some cases barely passing, at the end of it.

The Faculty still think it "desirable to encourage the better schools to have their students complete, before coming to Cornell, some of the more elementary work that is now offered and counted towards the degree of Bachelor of Arts," (Report, 1907–08, p. xxviii), and they still see "no good reason why beginning French or German might not be as well taught and as thoroughly mastered in the high school as in college." They do not desire, therefore, to cease allowing credit for surplus work in preparatory schools, but merely to guard against granting such credit ignorantly or improvidently. Whenever the school work is, in fact, equal or superior to college work, its superiority will appear upon the examination. Justice will be meted out to candidates, and the compliment paid to capable preparatory teachers will be rendered indubitable.

ARTS SUBJECTS FOR ENGINEERS

In the President's Report for 1906–07 (pp. 57–58), the suggestion was made to the engineering Colleges of "a fifth year of study in the engineering courses, the additional time to be spent wholly on humanistic studies while the student, during the first two years of the five-year course, was also pursuing his work in pure science." The question thus raised had come before the Faculty of Arts and Sciences in 1907–08, but in such a way that, as Dean Hill reported, "it was not possible for the Committee on Educational Policy to give adequate consideration to the matter before the close of the academic year." During the winter, however, definite proposals were received from Sibley College and from the College of Civil Engineering, embodying the President's suggestion, and in April a cooperative agreement was reached. Henceforward a five-year course will be offered leading to the degree of Civil Engineer, and a similar course leading to the degree of Mechanical Engineer. A student may begin either course upon satisfying the entrance requirements of this College, in which he will be in residence for his first two years. Passing then to Sibley College, or to the College of Civil Engineering, he will receive his technical degree upon the completion of his fifth year in the University. Detailed outlines of both five-year courses are printed in the Register for 1909–10 and need not be given here; but it may be permissible to mention certain features, common to both courses, which particularly concern this College.

One purpose of requiring that the first two years of a student's residence be in the College of Arts and Sciences and subject to its rules is that he may spend "the additional time . . . wholly on humanistic studies." To forestall any possible tendency towards filling his additional time with professional subjects it is further provided that so long as he remains in this College, he may not register for any other than the specified work in the departments lying closest to his later professional curriculum—mathematics, physics, and chemistry—or for any work outside this College save that specified in the outline of the course which he is following.

The amount of specified outside work is, furthermore, so small (at most ten hours in two years) that in addition to it a capable student may well complete, by the end of his second year, the sixty hours of Arts work, including six hours in each of the four stipulated underclass groups, which will entitle him, if he wishes, to continue as a junior in the College of Arts and Sciences. He may then either transfer to an Engineering college, or proceed regularly to his A.B. degree. The five-year course will thus allow the student two years of university experience before he is finally called upon to decide whether his purposes in life will be better served by pursuing an engineering course to the end, or by following instead either some other vocational course, or a general course.

In the five-year courses the incipient engineer, if he be sufficiently prepared in linguistic or other non-mathematical subjects to satisfy the Arts entrance requirements in full, may study in college the subjects of advanced algebra (so-called), plane geometry, and trigonometry, which students beginning the four-year engineering courses must pass at entrance. It is thought that the mathematical instruction given by this College in the second year of the five-year course will profit from the greater uniformity in the previous work of the five-year men, as compared with the uneven preparation of four-year students coming from their several fitting schools directly into the classes in analytical geometry and calculus.

And, finally, the establishment of these five-year courses has a wider significance. It may be looked upon as a step towards the ideal of the Special Committee on Aim and Scope of the Association of American Universities "that the best American universities will in the future rest their professional courses on a basis of College work which will range from one to four years, and that the professional student will spend at least five or six years in study from the day he matriculates in the College to the day he receives his professional degree (Proceedings of the Ninth Annual Conference, p. 75).

COURSES IN OTHER COLLEGES

The Committee on Academic Records ascertained that there were in April [illegible] no less than four ways in which an Arts student, before the beginning of his senior year, could secure permission to take work outside the College:

First, according to paragraph six of the Requirements for the Degree of Bachelor of Arts, if the head of a department in the College of Arts and Sciences certified that a course in another College was essential to the prosecution of courses offered in his department, the student might, upon approval by the Faculty, be allowed to elect such course.

Second, the Dean was authorized, by vote of the Faculty, to act as the head of a department for the foregoing purpose with respect to the courses in drawing.

Third, the Committee itself had allowed a few students, upon petition alleging particular reason, to take courses outside this College.

Fourth, students pursuing the special course in chemistry were permitted to take certain outside courses.

And further, fifth, the Committee were mindful that students intending to follow the five-year courses in Arts-Engineering would henceforward be similarly permitted to take certain outside courses.

The Committee found that the Dean had, for several years, granted permission to all applicants who asked to take drawing alleging either that they needed it as a support for their scientific work or to prepare themselves for positions as teachers. Also that heads of departments had endorsed petitions in considerable numbers, each alleging that one course or another outside the College was "essential to the prosecution of courses offered in his department," the actual connection being, in some cases, not obvious. The courses in Domestic Science, given in the College of Agriculture, were certified by several Arts departments, political, linguistic, and scientific. The course in Nature Study in the same College, was likewise certified by several departments, particularly by that of Education. In these cases the petitioners were generally women.

Scattering courses of a scientific nature, chiefly in the College of Agriculture, were certified by various scientific departments, and two courses in the history of architecture were certified by the historical and literary departments. The committee were of opinion that, on the whole, no seriously objectionable use of the privilege of certifying had become at all widespread, and that it served a useful purpose which ought not to be defeated. The committee found, however, that certain difficulties had arisen because of the varying views taken by the heads of departments of the meaning of the word "essential" in the printed form of petition; so that, for example, one student might chance to be registered with five heads of departments among whom there were several willing to certify that the course in Domestic Science was essential to their work, whereas another student might happen to be registered with five other heads of departments none of whom were willing to give such certificate. It became difficult to show the second student why that course was any more essential for her friend than for herself.

In order, therefore, to secure some uniformity of practice in this important matter, the Committee recommended, and the Faculty, at its meeting of 7th May, accordingly voted, a change in the sixth paragraph of the Requirements for the Degree of Bachelor of Arts, which was made to read, "Students desiring to elect courses outside the College of Arts and Sciences must first obtain the approval of the Faculty." It is understood that the approval in question, when granted, will be normally given by the Committee on Academic Records, acting for the Faculty and in accordance with existing precedents. The Committee has already permitted all women who wished, to elect courses in Domestic Science for next year.

NEW LEGISLATION

Of legislation entirely new there is little to report. On the recommendation of the Committee on Academic Records the Faculty so amended the definition of probation that henceforward,

> "No student who is on probation shall represent the University on any student organization, or individually, either at home or abroad, nor shall he participate in the performance or management of any play, nor shall he hold the position of assistant manager or manager of any student activity, or any editorial position, nor shall he compete for any of the positions mentioned."

I understand that the same definition has been adopted by several of the Colleges.

In order to carry these instructions into effect, the Dean prepared a report sheet covering the information requested, and on the first of November, December, January, March, April, and May sent a copy of it to each member of the instructing staff of the College. No blanks were sent in February and June as the results of the term examinations became available early in those months. To the requests sent them some members of the staff responded readily, others not at all. It is to be presumed that the latter had no classes normally open to freshmen and no Arts students in their other classes whose work seemed at any time likely to result in failure. In all 342 sheets of replies were returned, an average of 57 per month. The names on a single sheet ran from one to more than fifty, and some of the sheets bore, in addition, illuminating comments upon individuals. At one time or another 347 students were reported as irregular or unsatisfactory during the first term, and 243 during the second term. But only 101 were reported during the first term, and only 68 during the second term, by two or more professors in any one month.

Experience soon developed a variety of reasons for the appearance of a student's name in the list of those reported from two or more courses. It might be the result of illness—several of the best students in the College, being absent from classes because of their health, were reported early in the year by instructors who had not yet become acquainted with them. Or it might be insufficient preparation, or timidity, or stupidity, or irresponsibility, or sheer laziness. The Dean early decided, therefore, that a routine letter to each student reported from two classes would be useless, and attempted to treat each case on such of its merits as he could ascertain. Some were passed without notice. In some cases the instructor was informed that a student doing badly with him was also behind in other classes and was asked to talk with him. In a few instances a letter was written to the student's parents. In others the student was summoned to the Dean's office and there interrogated, or advised, or encouraged, or warned, as the circumstances seemed to call for. During the first term interviews of this character were had with 37 students, during the second term with 26. Of the 37 there were five who failed to finish out the term, three withdrawing on account of illness, and two confessing failure. Thirty-two remained. Of these, 19, or 60%, were allowed to continue for the second term, 14 without question and 5 on probation. Thirteen were dropped. Of the 26 interviewed in the second term one withdrew, eleven passed, six were put on probation, and eight dropped.

mas recesses, likewise on each day from the fifteenth to the twentieth of March, a week wholly undisturbed by vacations or out-of-town games. The responses to the Committee's inquiry received in March were less numerous than those made two months earlier, but the smallest returns for any one day covered over two thousand students due (not two thousand individuals—each student will be due in at least three classes, presumably, each day.) For some days the returns covered four thousand students due. These numbers seemed to the Committee large enough to afford a usable basis of calculation, and upon it they based the following

COMPARISONS OF NORMAL ABSENCES FROM THE COLLEGE OF ARTS AND SCIENCES WITH ABSENCES ON DAYS BEFORE AND AFTER VACATIONS

1. Normal Absences—Week of March 15th—20th, 1909.

	Mon. 15th	Tue. 16th	Wed. 17th	Th. 18th	Fri. 19th	Sat. 20th	Whole Week
Students reported due	2065	1697	2093	1677	1915	943	10390
Students reported absent	146	94	115	127	164	88	734
Absences per thousand	71	56	51	77	85	93	71

2. Absences before and after Thanksgiving, 1908.

	Tue. 24th	Wed. 25th	Sat. 28th	Mon. 30th	Total 4 days
Students reported due	3210	3714	1260	3868	12051
Students reported absent	250	481	309	311	1351
Absences per thousand	78	129	242	69	104
Normal per thousand	56	51	93	71	65
Excess over normal	22	78	149	−2	39
Percentage of absences assignable to vacation	28	60	62	−3	37

3. Absences before and after Christmas, 1908.

	Mon. 21st	Tue. 22d	Wed 6th	Th. 7th	Total 4 days
Students reported due	4116	3421	4208	2787	14532
Students reported absent	522	583	523	216	1844
Absences per thousand	102	141	124	79	127
Normal per thousand	71	56	51	77	64
Excess over normal	31	85	73	2	63
Percentage of absences assignable to vacation	30	60	59	3	49

declining again.

(3) In order, then, to measure
adjacent to vacations, those days
same week day in the normal pe
(made in the third, fourth, fifth, a
above) it appears that two days
thirds of the actual absence is norm
attributable to the propinquity o
immediately before and after vaca
absence is normal, and sixty per
vacation cutting; and that by the
influence of the holiday has exhau
again attending classes with norm
days adjacent to the vacations as a g
half of the absences upon them is due
and less than half is due to the occur

(4) The figures in the foregoing
trations, not for individuals, are like
the actual amount of absence from
the absolute number of students abs
tion, and also of the number whose
which the Executive Committee ap
secured by applying to the total reg
was 902 by the last Register, the pe
days in question. Thus, for exam
December

two of these would have been absent even if no vacation had been in prospect.

(5) Analysis of the detailed figures underlying the "Comparisons" revealed the not unexpected fact that the percentage of absences differed greatly from department to department, being, for example, over three times as large in one language department as in another. In general it appeared also that vacation cutting was slightest in those departments in which attendance was at other times least irregular.

The Committee on Educational Policy, being thus convinced that the "excess of absences immediately preceding and following recesses" was less than might have been supposed, and, further, that the evils complained of would be best met by encouraging regular attendance at all times, reported to the Faculty that,

> "This committee does not deem it wise to attempt any regulation of absences immediately before and after vacation periods separately from absences occurring on other days."

LEAVES OF ABSENCE

Following the practice of recent years, the Dean has issued leaves of absence to students making application for them on grounds which seemed to him sufficient. During the year 1908–09, no less than 513 out of the 902 registered students made such applications, and they were granted, in all, 1088 leaves of absence, covering in the aggregate 3196 school days. Large as these figures appear, a comparison of them with the returns of absence received from the several departments (cf. p. XLI above) seems to indicate that the leaves of absence reflect but a small portion of the actual absences. Assuming the normal absence to be 71 per thousand (as above), the total absence of 902 students in 176 school days (not counting Sundays, or the examination periods for which no leaves of absence are issued) would be (902 x 176 x .071) 11,271 days, of which sum the 3196 days of excused absence are but 28½ per cent. This calculation may be checked by another—during the week of March 15—20 (see p. XLI above) the leaves of absence in force compare with the actual absences indicated by the departmental reports as follows:

Day	Leaves in force	Absences indicated
Monday, 15th	15	(902 x .071=) 64
Tuesday, 16th	14	(902 x .056=) 51
Wednesday, 17th	15	(902 x .051=) 45
Thursday, 18th	27	(902 x .077=) 69
Friday, 19th	31	(902 x .085=) 77
Saturday, 20th	31	(902 x .093=) 84
Week	133	390

The percentage of excused to probable absences here is 34, as against 28½ by the other calculation. The conclusion seems warranted that at least two-thirds, and perhaps three-quarters of the absences actually occurring remain unexcused so far as the College office is concerned.

In fact the number of leaves of absence issued by the Dean depends less upon the number of students absent than upon the attitude of the several professors towards absentees from their classes. For some years it was the practice of many professors and instructors themselves to excuse all students who offered an acceptable reason (usually illness) for their absence, and in consequence such students did not come to the Dean at all. Thus in his report for 1904–05 (p. xxxix) Dean Willcox speaks of "a growing tendency to neglect obtaining a leave of absence from the Dean, and to present whatever excuse the student may have directly to the department in which work has been elected." During the past year, in consequence perhaps of the Faculty discussions concerning absences, and it may be in consequence also of the inquiries which have been made (cf. p. XLV below) as to irregular students, the tendency mentioned by Dean Willcox has been in a degree reversed, and many departments have demanded an official leave of absence before excusing a student. It is to this changed attitude of the members of the instructing staff, and not to any exceptional sickliness among the students, that I attribute the striking increase of the figures opposite "personal illness" in the following table:

LEAVES OF ABSENCE GRANTED, 1904–1909

Ground	1903-4	1904-5	1905-6	1906-7	1907-8	1908-9
Personal Illness	117	56	48	37	151	640
Illness or death in family	62	31	30	22	37	44
Request of family	22	14	5	4	25	21
Wedding	20	18	13	7	14	28
Business summons	67	42	32	23	48	31
Delegate to Convention	20	19	1	—	5	16
Voter	11	61	6	1	9	32
Department Excursion	60	29	7	7	6	140
Examinations	20	22	2	6	3	12
Missed Connections	34	6	—	—	3	—
Miscellaneous	23	11	11	24	8	55
Student Organizations	—	—	—	—	—	59
Total	456	309	155	131	309	1088

Of the leaves for miscellaneous reasons the greater part were issued as a means of excusing members of the festival chorus, whose rehearsals conflicted with their regular University exercises. In using the table it should be borne in mind, also, that the number of students now in the College is thirty per cent. larger than in 1903–04.

FOLLOWING UP THE WORK OF STUDENTS

On the 4th of May, 1908, the Faculty voted, on the recommendation of the Committee on Academic Records, to authorize that Committee to dismiss students at any time if their records demanded it. (Minutes ii, 44). On the 10th of October, the Committee directed that the Dean request all members of the Faculty to report monthly to him the names of students in any of their classes whose work was likely to result in failure. On the 20th of October the Administrative Board, which had been put in charge of the work of freshmen and sophomores in the College (Report, 1907–08, pp. xxix–xxxi) and given by University statute "full power to supervise their work and to provide means for making it effective," directed the Dean, as its chairman, to "request the various teachers in the College of Arts and Sciences to report to him the names of any students, in sections normally open to freshmen, who are deficient in class-room work or irregular in attendance." And on the 18th of November the Board voted "that the Dean, in his discretion, notify freshmen and sophomores, in personal conference or by letter, of reports of their deficiency in class or irregularity in attendance, when such reports are made from two or more courses."

In order to carry these instructions into effect, the Dean prepared a report sheet covering the information requested, and on the first of November, December, January, March, April, and May sent a copy of it to each member of the instructing staff of the College. No blanks were sent in February and June as the results of the term examinations became available early in those months. To the requests sent them some members of the staff responded readily, others not at all. It is to be presumed that the latter had no classes normally open to freshmen and no Arts students in their other classes whose work seemed at any time likely to result in failure. In all 342 sheets of replies were returned, an average of 57 per month. The names on a single sheet ran from one to more than fifty, and some of the sheets bore, in addition, illuminating comments upon individuals. At one time or another 347 students were reported as irregular or unsatisfactory during the first term, and 243 during the second term. But only 101 were reported during the first term, and only 68 during the second term, by two or more professors in any one month.

Experience soon developed a variety of reasons for the appearance of a student's name in the list of those reported from two or more courses. It might be the result of illness—several of the best students in the College, being absent from classes because of their health, were reported early in the year by instructors who had not yet become acquainted with them. Or it might be insufficient preparation, or timidity, or stupidity, or irresponsibility, or sheer laziness. The Dean early decided, therefore, that a routine letter to each student reported from two classes would be useless, and attempted to treat each case on such of its merits as he could ascertain. Some were passed without notice. In some cases the instructor was informed that a student doing badly with him was also behind in other classes and was asked to talk with him. In a few instances a letter was written to the student's parents. In others the student was summoned to the Dean's office and there interrogated, or advised, or encouraged, or warned, as the circumstances seemed to call for. During the first term interviews of this character were had with 37 students, during the second term with 26. Of the 37 there were five who failed to finish out the term, three withdrawing on account of illness, and two confessing failure. Thirty-two remained. Of these, 19, or 60%, were allowed to continue for the second term, 14 without question and 5 on probation. Thirteen were dropped. Of the 26 interviewed in the second term one withdrew, eleven passed, six were put on probation, and eight dropped.

In the effort to test the working of the new device, I made a list, 17th January, 1909, of seventy students who, to judge from the reports, were likely to figure in the Registrar's list of "doubtful cases" when the term examinations should be finished. The Registrar's list proved to contain, in fact, the names of eighty-one students who had failed, without sufficient excuse, to pass 12 hours, or who had not passed two-thirds of the hours for which they were registered, or who had failed in three (or more) subjects. Of these 81, the prophetic list of 70 contained the names of 43, or 61% of its total. Of the 30 students dropped at the end of the first term, 23, or 76%, were on the prophetic list. The results in the second term were substantially similar.

It seems, therefore, that while the experiment of following up the work of students (not all of them underclassmen) in the manner described has not been as yet long enough under way to warrant a confident opinion upon its success, it does, at least, designate in advance a large share of the students whose danger of failure is greatest, and thus affords a basis for special warnings. Whether any of those interviewed, who did not fail, might have failed if left wholly to their own devices, I know no sure way to determine. Indeed one thing only is quite sure—interviews with such students do devour time.

DELINQUENT STUDENTS

In recommending that a student be dismissed from the College, the Committee on Academic Records acts not upon disciplinary grounds but solely upon considerations of scholarship. In consequence, the Committee, even if empowered to drop a student during a term, was in no position to do so until his marks were made up after the final examinations. The recent action (p. XLV above) authorizing the dismissal of a student at any time that his record demands it, and making current reports of the work of some of the students available, have much increased the Committee's responsibilities this year, and in the exercise of them it dropped four students before the close of the first term, two on December 11th, one on January 8th, and one on January 18th. During the second term, also, a student was dropped, primarily for neglect of work. At that time, however, a disciplinary aspect had been imparted to the case by the student's failure to comply with the requirements of the rule as to probation (p. XXXIX above), and the action was taken by vote of the Faculty, though upon recommendation of the Committee on Academic Records.

It is to be hoped that the action of the Committee and of the Faculty in such matters may tend to disabuse students in the College of an idea which too many of them seem to have cherished, that if only examinations in twelve hours were somehow passed at the end of the term they were at liberty to neglect current class-room work as much as they pleased.

The net result of the action of the Committee in passing upon the work of delinquent students (including the cases above mentioned) is indicated in the following table, in which, as is customary, the figures for preceding years are also given by way of comparison:

Academic year	Students dropped			Students warned or put on probation		
	First term	Second term	Total	First term	Second term	Total
1902–03	15	1	16	37	13	50
1903–04	21	12	33	17	20	37
1904–05	23	20	43	18	10	28
1905–06	21	16	37	20	18	38
1906–07	18	15	33	42	48	90
1907–08	21	21	42	24	21	45
1908–09	27	22	54	33	29	64

In considering this table it should be remembered that the freshman class furnishes the largest proportion of the students dropped or warned, and that the freshman class of 1908–09 was 51% larger than that of 1903–04.

WORK OF COMMITTEES

The Committee on Academic Records held twenty-two meetings during the year. The results of its action upon delinquent students, of its request for reports upon students likely to fail, and of its recommendations to the Faculty regarding probation, alien summer schools, advanced standing for work done in preparatory schools, and courses outside this College, are explained elsewhere in this report. The Committee also sent specific notice to each student who entered the College during the year of the precise conditions upon which he might expect to receive the degree of Bachelor of Arts. This was done to remove any uncertainty which might exist in the mind of freshmen as to their surplus entrance credit, conditions, etc., and to forestall any possible misunderstanding or confusion when they became technically candidates for graduation, two years hence. In February the Committee recommended to the Faculty for graduation forty-eight members of the class of 1909 who had then completed seven terms of residence and 120 hours of work. These students had all entered the College before the present requirement of eight terms of residence went into force. The privilege of graduating upon hours was denied, however, to several seniors who were admitted to advanced standing here after the eight-term rule had been adopted. Such members of the class of 1909 were thought to come, like all members of the class of 1910, under the operation of the new rule. Of the forty-eight students who were allowed to take advantage of the old rule, about one-third applied for leave of absence until June, while two-thirds remained in the University and registered in the Graduate Department.

The Committee on Educational Policy met eleven times. Its sessions were chiefly given to considering the five-year courses in engineering and to the question of absences. The results have been indicated above. The Committee also discussed the possibility of a course of public College lectures, to be given by members of our own Faculty, and to deal, in biographical manner, with epoch-making events in the history of the sciences; likewise the desirability of inaugurating some cooperation with the preparatory schools in the preparation of the Cornell entrance examinations. But no positive action resulted from either of these discussions.

The Administrative Board in charge of Freshmen and Sophomores in the College of Arts and Sciences is not a committee of the Faculty, but a body of independent statutory position. Inasmuch, however, as regulations adopted by the Board may be disallowed by the Faculty, it seems not improper to treat the Board as a committee for the purposes of this report. Besides meeting nine times during the year, the Board has done a large amount of work through its own committees. An account has already been given of the new method of advising students which it initiated, of the pamphlet which it caused to be published last summer for their information, and of the inauguration of its system for collecting reports on the class work of freshmen and sophomores. It also passed on the list of courses which will be open to next year's freshmen without its special permission, and issued a pamphlet for their information in 1909–10.

The Board addressed itself further to the two important questions referred to it by the President: "the proper method of instructing underclassmen," and "the teaching together of students taken indiscriminately from all classes." (President's Report, 1907–08, p. 33.) The first step was to appoint committees which should ascertain, as definitely as possible, the precise facts regarding each of these matters. The committees were expected then to consider the facts and to report their findings and recommendations to the Board.

In conformity to this plan the Committee on the instructing of underclassmen attempted especially to learn, with reference to the courses normally open to freshmen, the extent to which "recitation, question and answer, and constant drill" were employed. After examination of the reports from those courses and discussion of various aspects of the question suggested by the experience of its members, the Committee addressed a detailed circular of inquiry to the departments concerned, and subsequently followed up the replies by other written inquiries and by conversation. A large amount of data was thus amassed, of which, by the direction of the Board, a synopsis has been presented to the President. (*Minutes of the Board*, 16 March, 1909). From this synopsis it appears that among the 57 courses normally open to Arts freshmen there were but nine in which fifty or more students were currently taught, even in part, by lectures. In seven of these nine courses there were frequent oral recitations, either in the class as a whole, or in sections, or incidentally to the laboratory work which was an essential portion of the course. The remaining forty-eight courses fell into two groups: (1) linguistic and mathematical, in which daily recitations are the almost invariable rule, and (2) courses consisting almost wholly of laboratory work in the sciences, in which constant drill is the essence of the course.

The Committee, therefore, reported their opinion "that in nearly every course in which freshmen are taught there is adequate provision for the questioning of the individuals, either by recitation or laboratory work, or by both." The Committee recommended, however, that the Board authorize its chairman to confer with the heads of certain departments "in order to ascertain whether or not it is possible to arrange their courses so as to prevent freshmen from registering in lecture courses unaccompanied by laboratory work, or recitation work, or both." This report the Board accepted and adopted.

The Dean, who is *ex-officio* chairman of the Board, thereupon conferred with the departments designated, and also with others.

When the Board shall meet again he will be able to report to it that the announcement of next year's large course by one of the departments now conforms to its suggestion by requiring that the lecture portion of the course be accompanied by either the laboratory or the recitation sections. But he will be obliged to add that this change was rendered possible only by the enlargement of the department's staff, and that the lack of sufficient instructing force, and the inadequacy of the laboratories is one of the strongest reasons for the occasional continuance of lecture courses open to freshmen.

It must also be remembered that opinion in the Faculty is by no means unanimously against lecture courses even for freshmen. And if the choice must be between lectures delivered to a large class by an experienced and cogent man, a master of himself and his subject, and recitations conducted by an inexperienced assistant, the superiority of recitations seems at least questionable. But upon that topic I hope, after further inquiry, to say something in the report which the Faculty has requested the Dean to make to it "upon the general condition and needs of the College of Arts and Sciences."

The Committee charged to investigate the teaching together of students taken indiscriminately from all the classes made an analysis of the Registrar's figures showing the number of Arts freshmen, sophomores, juniors, and seniors, respectively, in each course in the College during the second term of 1907–08, the latest then available. In this analysis the Registrar's determination of each student's class was used, as a matter of course. Subsequent consideration showed that, for the particular purposes of the Committee, that classification was in some degree misleading—it placed a man, for example, in the freshman class if he had an entrance condition still standing against him, regardless of the number of terms he might have spent in the University. In the analysis which the Committee subsequently made of all classes containing ten or more Arts students in the first term of 1908–09 this source of error was eliminated, and the number of terms of residence was employed instead, a student in his third or fourth term being accounted a sophomore, one in his fifth or sixth a junior, etc. The difference in the result, however, was not large enough to justify the expense of remaking, on the basis of terms of residence, the extremely laborious inquiry already carried through for the second term of 1907–08 on the basis of the Registrar's classification.

The detailed figures, which extend to over two hundred quarto sheets, cannot be given here. But they were pondered by the Committee and considered by the Board, and the conclusions based upon them are entitled to respect as the result of a thorough investigation. Taking separately (1) the courses open to freshmen and (2–5) the four mutually exclusive groups in which (2) freshmen, (3) sophomores, (4) juniors, and (5) seniors are the most numerous class; the following results were obtained:

Group	Second term, 1907–8	First Term, 1908-09
1 Open to freshmen....	16% upperclassmen	14.1% upperclass
2 Freshmen predominate	15% upperclassmen	11.9% upperclass
3 Sophomores "	40% upperclassmen	33.7% upperclass
4 Juniors "	24% underclassmen	18.7% underclass
5 Seniors "	20% underclassmen	15.3% underclass

An inspection of the detailed figures (not given here) shows further that the greater part of the mixing reflected in the foregoing table is due to two sorts of courses. Typical of the first sort is the so-called "third year" in French or German. This is taken with equal propriety by freshmen who have passed the advanced requirement at entrance, by sophomores who have passed the elementary requirement and had the second year in College, and by juniors who began the language at Cornell. Analytical Geometry and Calculus likewise are sophomore courses for many Arts students, but freshmen courses for those who present the major mathematical requirements at entrance. The other chief sort of mixed course is introductory to some one of the great disciplines not taught, or frequently not studied, in the preparatory schools,--chemistry, physics, botany, and especially geology, physical geography, elementary economics, and general ethics. It is scarcely possible that a student should begin all of these subjects, besides continuing his languages, etc., in his underclass years. In many cases it is probably undesirable that he should do so. In fact some students postpone one elementary course until junior year, some another. These courses thus become quite mixed. A third group of mixed courses is found in the Departments of Oratory and Music, but the number of students here involved is not sufficient to produce any significant effect upon the total figures.

The meaning of these considerations for the Committee's problem may be illustrated by examining group 3 of the foregoing table—

courses in which sophomores predominate. The percentage of upperclassmen in that group was 33.7. After the elimination from it of the courses mentioned in the preceding paragraph, the percentage of upperclassmen in the residue falls to 24.1. If ,then, groups 1, 2, and 3 are regarded as characteristically underclass courses, and groups 4 and 5 as upperclass courses, it will appear that while there is no formal exclusion of underclassmen (except freshmen) from upperclass courses, or vice versa, there is at present a strong tendency for upperclassmen and underclassmen to separate themselves, the proportion of the presumably foreign element in four of the five groups being, by the more accurate of the two analyses, from about one-eighth to less than one-fifth of the whole. This is in part due to the requirement, in most advanced courses, of various elementary courses as prerequisite. Underclassmen, in general, are thus automatically excluded from such advanced courses, and the students are sorted by the true educational criterion of their preparation, not by formal criterion of their seniority. To exclude upperclassmen, as such, from all underclass courses (whatever those may be) would either prevent upperclassmen from taking up subjects that they might need for future, perhaps graduate, work, or would involve much duplication of instruction.

The Committee, having these facts in mind, summed up its conclusions in the following report, which, after explanation and consideration, was adopted by the whole Board:

"It is the opinion of the Committee, (1) That the state of affairs shown by this report indicates a natural condition in a University in which an elective system exists. (2) That the ratios, however, are probably a little higher than need be, and could therefore probably with safety be reduced a few points; but to reduce them to the vanishing point would not be consistent with our present elective system. For example, the University ought never to exclude from beginning language any students who desired to take such work; nor, similarly, should it exclude from advanced classes those underclassmen who, in a certain subject, possess unusual qualifications. It is difficult, however, to generalize for all subjects. The Committee believes there are subjects in which age and general experience serve as an equivalent for specific preparation—for instance, philosophy, history, literature; and other subjects in which no amount of general experience serves as a preparation for advanced courses—for example, mathematics, languages, science. (3) That the desirable minimum above alluded to could probably be reached through the establishment within the several departments of a more carefully graded curriculum; and (4) That one of the means toward such gradation might be found in reducing the amount of credit given to

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REPORT OF THE DIRECTOR

To the President of the University:

Sir:—I have the honor to submit
for the academic year 1908–1909.

Mr. F. D. Colson, Instructor in
devoted and efficient service on the
resigned to accept the office of Law
his resignation taking effect at
Charles Tracey Stagg, LL.B., 1902,
Instructor and has since been appoi
Mr. Stagg took up the courses in Bill
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tion. During the second

however, gave in the second term a brief course in Legal Research which in a measure supplied the place of the course in Brief-Making.

Judge Gunnison finding that he would be unable to return from Alaska to give the course in Bankruptcy, Mr. William H. Hotchkiss, who so successfully conducted the course last year, was appointed to give it this year, but his duties as Superintendent of Insurance precluded him from coming to Ithaca until too late in the term, and that course has accordingly not been offered. With the exceptions noted all the announced courses have been regularly conducted.

During the coming academic year, Assistant Professor Stagg will conduct the courses in Brief-Making, Probate Law, Procedural Papers, Bills and Notes, and Mortgages, the course in Conveyancing formerly given by Mr. Colson having been taken by Professor Finch. The course in Municipal Corporations and Public Offices will be given for the first time to the seniors, by Professor Hayes. Suretyship, heretofore a junior course, will be given to the seniors, and Partnership, heretofore a senior course will become a part of the junior curriculum. This change has been made in order that the study of Suretyship shall be preceded by the courses in Equity Jurisdiction and Bills and Notes, subjects upon which the law of suretyship largely depends.

The registration in the College for the past ten years is shown by the following table:

Year	Seniors	Juniors	4 Year 2	4 Year 1	3 Year 1	Special	Total
1899–1900	52	61	—	—	61	4	178
1900–1901	45	52	—	—	78	7	182
1901–1902	34	71	—	—	86	7	198
1902–1903	48	77	—	—	95	5	225
1903–1904	53	76	—	—	109	3	241
1904–1905	58	80	—	—	86	4	228
1905–1906	65	69	—	—	83	4	221
1906–1907	51	70	—	—	89	1	211
1907–1908	48	68	—	—	85	5	206
1908–1909	48	58	15	29	71	6	227

Owing to the increase in numbers of students in the four-year course they have been separated from the three-year students for the first time in the above table. Formerly all first-year students were grouped in one class, and four-year students in both the second and third years of their course were classed as Juniors. The figures for 1908–1909 under the old classification would be, Seniors 48, Juniors 73, First Year 100.

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of the Director. Referring to the c
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requirements for admission to the combined Arts and Law course of four years, there shall be admitted to the three-year course only graduates of universities and colleges, and students who have met the entrance requirements and satisfactorily completed one year of study in a university or college of approved standing."

This recommendation was adopted by the Trustees of the University, April 3, 1909. The four-year course will therefore after 1910–1911 be taken by all students coming from the high schools and preparatory schools; the three-year course will be open only to college graduates and to those who have had at least one year of college work at Cornell or elsewhere. This last stated degree of preparation will therefore be possessed by all students pursuing law subjects, except the single subject of Torts, which is taken by the four-year men in their first year.

The desire on the part of students entering the three-year course without previous college work to pursue Arts subjects (referred to in last year's report, pp. xli, xlii), is still manifest. The Faculty has accordingly enacted regulations whereby such students may, until the new requirements take effect, transfer to the four-year course at the end of their first year, and make their sophomore year practically a year of Arts study. All students entering without college work are, however, advised and urged to enter the four-year course at the beginning.

Mr. Earl J. Bennett, LL.B., 1901, has during the year given to the University for the College of Law securities to the amount of $2,000. Mr. Bennett had no desire that his name should be used in connection with his gift, although he did not forbid its use; nor did he designate the specific purpose for which the fund should be used. He made the gift broadly to the College, solely in recognition of his obligations thereto. This fund has been devoted to the completion of the collection of session laws upon which the librarian has been for several years engaged, but for which no special resources were available. The collection has therefore been called the "Earl J. Bennett Collection of Statute Law" in recognition of the donor's generosity.

A natural difficulty is presented in exercising a proper supervision of the Arts work of the students in the four-year course, especially in view of their increasing number. Such supervision has been effected by means of monthly reports from the professors in charge of Arts courses taken by these students. For the prompt preparation and transmission of the reports, involving a very considerable expendit-

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APPENDIX V.

REPORT OF THE DIRECTOR OF THE MEDICAL COLLEGE.

To the President of the University:

SIR:—I have the honor to present the following report upon the Medical College for the year 1908–1909.

Beginning with the session of 1908–1909, the requirements were raised so that a degree from certain accredited colleges became necessary for admission. The immediate result was the registration of but three students in the first-year class, as against 70 the previous year. At Ithaca 13 students were admitted as against 33 the year before. The admission to the other classes remained about the same, as the change in requirements applied only to the first. The effects of this unprecedented decline might have been disconcerting had it not made it easier to inaugurate the changes involved in widening the instruction to be offered the better prepared students we now seek.

Our curriculum so far, has been arranged to produce graduates fitted to enter at once upon the practice of medicine. Now it must be arranged, not only for the production of such graduates but of those who propose to become teachers as well, and also of those who desire to become investigators, with the intention perhaps of entering public service as medical sanitary officers in connection with the civil, military, or naval departments of the government.

The rapidly increasing demands of "Preventive Medicine," resting as it must upon the broadest principles of sanitation, made necessary a more comprehensive curriculum, particularly in the first and second years. To this end, Chemistry, Bacteriology, and Physiology had more space assigned them and steps were taken to extend the field of Clinical Pathology.

Hygiene bearing such an important part in "Preventive Medicine," it is interesting to know that we are well equipped to pursue the study of it without undue elaboration in the direction of separate courses. At Ithaca and in New York the entire ground is so well covered, it only needs slight additions to work already being pursued in the University, together with some cooperation and coordination, to enable this division of the school, conjointly with

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The school has been fortunate in s
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rate with us so fully and clearly as to permit the student readily to grasp the intricacies of the more obscure and difficult facts of the chemistry of the human body. And for such as desire to pursue a course in experimental physiology, experimental pathology, or therapeutics it is indispensable. As the science of medicine advances it is fair to assume that its importance to medical education will be steadily enhanced.

The Department of Pharmacology has been broadened by the appointment of Professor Coleman as Professor of Clinical Medicine and Applied Pharmacology. This means that Professor Coleman will teach the clinical application of all pharmacological substances, so that within the limits of the Department each remedy will be studied in its entirety, first in the laboratory under Professor Hatcher, then at the bedside under Professor Coleman, the clinical demonstrations to be preceded by a series of lectures by Professor Coleman, explanatory of the therapeutic properties and uses of all remedies covered by the Department. He will deal in a similar manner with all other therapeutic agents which may lie outside the domain of pharmacology, excepting such as may be classed under the head of surgical procedures. In this way it is hoped that every remedy, no matter of what nature or substance, which is proven and accepted as a means of combating disease, will receive adequate attention at our hands. No one is better fitted to fill this field than Professor Coleman and we consider ourselves fortunate in that he undertakes the task. Professor Hatcher, as Head of the Department, gives his cordial approval to the cooperation of Professor Coleman in thus rounding out and completing the purposes of Pharmacology and Pharmaco-dynamics.

This is an appropriate place at which to consider the field which this school has in view for its Department of Therapeutics. Reference to textbooks will show that the term "Therapeutics" is used in treatises on Materia Medica to cover the consideration of the clinical uses of the particular substance described. This aspect of therapeutics is assigned to Professor Coleman.

In treatises on the "Practice of Medicine," the section which covers the consideration of any one disease, pneumonia, for instance, is headed "Treatment," or in some books "Therapeutics." It tells how the particular ailment should be treated, and necessarily names a number of remedies, drugs, or other than drugs, to be used early or late according to the shiftings of the scene. The treatment of the several diseases and their phases, each in regular order, is thus

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the work to which we have had pleasure in advancing him. Similar expressions apply to Assistant Professor Newcomb of the Department of Laryngology, who since the foundation of the school has served as Chief of Clinic and First Assistant to Doctor Knight. He has been advanced as Assistant Professor to the place made vacant by Doctor Knight's resignation.

I now beg to append extracts from the reports of several of the departments as examples of the kind of work they carry on.

DEPARTMENT OF MEDICINE

The work of the instructors and assistants is efficient and satisfactory.

More experimental work than usual has been carried out.

Various assistants have taken an active part in the clinics of the Head of the Department, also in ward work, being called upon to demonstrate before the class various special lines of research in which they were proficient. Doctor Armstrong has demonstrated examination of gastric cases. Doctor Niles has demonstrated thoracic measurements in tuberculosis. Doctor Barringer has shown methods of cardiometery. Doctor Beebe has frequently given advice regarding the use of sera and organic extracts before the entire class. At the clinic in Bellevue Hospital, Doctor Hartwell has assisted in combined medical and surgical clinics; Doctor Barringer has demonstrated cases of unusual cardiac disease; the X-Ray Department has been frequently made use of; Doctor Hastings has provided microscopic specimens of parasites, etc., derived from the patients who were presented. Doctor Hastings has attended these clinics regularly and has been called upon for opinions regarding cases where the blood examinations, etc., were important. An unusually varied and interesting series of cases were thus presented. Doctor Bailey also gave one or two demonstrations of cardiograms, etc., at these clinics.

In the ward service at the Presbyterian and Bellevue Hospitals pathological material has been presented when possible, after the death of the patient, in confirmation of a diagnosis.

Three new methods have been adopted at Bellevue Hospital which have added to the efficiency of the service and stimulated the interest of the house staff, thereby benefiting all the students.

First. All the surgical staff, including the surgical visiting and assistant visiting members, have made joint rounds at stated regular

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in medicine with Doctor Thompson, in order to discuss before the class the exact pathological changes present in patients whose symptoms are being simultaneously demonstrated.

In regard to the recitations and other phases of teaching in the Department next year it is believed that more concentration of the work among somewhat fewer teachers will yield more satisfactory results in future. Doctor Camac, having resigned from physical diagnosis, will be able to give more time to ward work at the City Hospital. It is unnecessary to fill his place in physical diagnosis as other instructors can cover the ground. The clinics of Doctors Nammack and Lambert can be supplemented by the Professor of Therapeutics.

Special mention should be made of the work engaged in by Doctors Wolf (of the Department of Chemistry) and Lambert who were engaged in the study of the metabolism of certain infectious diseases, and the results of this investigation were found to be extremely satisfactory and instructive.

DEPARTMENT OF PATHOLOGY

Instruction in the various branches has been conducted along the same lines. The standard has been satisfactory.

Histology: The small class of the new curriculum permits closer contact of the student and teacher. Much more detailed instruction has been given and the course in histological technics has been carried through with great success; a system of students' theses has been employed with gratifying results. Much credit is due to Doctor Ferguson for the energy and discretion with which he has met possibilities of the new curriculum.

Doctor Stockard's course in Comparative Morphology was much enlarged for the new students and has filled a distinct gap in the scientific foundation of the medical course. A series of mounted skeletons illustrating the bony frameworks in the various orders of animals has been added to the equipment. It is believed that this course has introduced in students a new and stimulating interest in the study of anatomy.

Doctor Elser's course in Bacteriology was given as usual. Nothing need be added to the high estimate previously given of its excellence. Increased attention has been given to the hygienic aspects of bacteriology.

Gross Pathological Anatomy: Doctors Schultze and Neal have demonstrated the usual rich collection of recent material. The

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Doctor Ferguson's sub-department of Histology, Doctor Stockard's field of Comparative Morphology and Embryology, work in Neurohistology under Doctor Strauss, are all transferred to the Department of Anatomy. These subjects properly belong to Anatomy and the formal transfer is of great mutual benefit. Doctor Beebe has been transferred to the Department of Experimental Therapeutics, thus creating the first department of this field in America.

Microphotography: New quarters and much needed apparatus will greatly facilitate work in this important branch. Doctor Jaches is now the only University instructor in Microphotography in New York. Two students have received instruction. His work is excellent and has received favorable comment in Germany.

The library now includes about 6,000 volumes. The new library is better lighted, more suitably located, and will meet the requirements for space for many years. Important donations were received from the Dean and from Doctor Leonard Weber, through the recommendation of Doctor Meltzer, who presented a complete bound set of Virchow's Archiv worth at least $500. A librarian will soon be needed to make the library available for student purposes.

DEPARTMENT OF GENITO-URINARY SURGERY.

The students of the third and fourth years have been given instruction as required by the curriculum. A new syllabus on the infections of the urinary tract was published by the Head of the Department and given to the class this year.

The Head of the Department has continued to carry out his investigations in regard to the physiology and pathology of the prostate; the physiological mechanism of urination, etc. In this connection he has published during the past year from the Department three papers, viz: Contribution to the Surgery of the Prostate; (a) The treatment of urethro rectal fistula by a new method. (b) The restoration of voluntary control of the urine in cases of incontinence following surgical operation; two papers upon the pathology and surgical treatment of prostatic suppurations; and a paper read at Paris by request before the First "Congress Internationale d'Urologie" on certain parts in the physiology of the prostate.

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Clinical Pathology and Bacteri

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DEPARTMENT OF OBSTETRI

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APPENDIX VI

REPORT OF THE SECRETARY OF THE ITHACA DIVISION OF THE MEDICAL COLLEGE

To the President of Cornell University:

Sir:—I have the honor to present the following report of the Ithaca Division of the Medical College for the college year 1908–09:

This is the first year of the second decade of the Medical College. In many ways it has been the most successful in the history of the College. Among the most notable events of the year were: the retirement of Professor Simon H. Gage from the chair of Histology and Embryology; the transferring of Professor Benjamin F. Kingsbury from the chair of Physiology to the chair of Histology and Embryology; the appointment of Dr. Sutherland Simpson as Professor of Physiology; the appointment of Dr. Andrew Hunter as Assistant Professor of Biochemistry; the enforcement of the higher entrance requirements; the rearrangement of the curriculum; and the changes in the Medical building.

The proposed retirement of Professor Gage, which was noted in your last report (p. 10), also in the report of the Acting Secretary for last year, (p. lii), became effective at the beginning of the present academic year, and although Professor Gage has been present in his research laboratory in Stimson Hall he has taken no active part in the teaching or administration of the College and he has been greatly missed in every way.

The appointment of Dr. Kingsbury to succeed Professor Gage was most happy. He is not only thoroughly trained in Histology and Embryology and thoroughly conversant with the methods at this institution, since he had been Assistant Professor with Professor Gage before he undertook the work in Physiology, but he has also made a reputation for himself by his published researches in Histology and Embryology.

We are also particularly fortunate in the appointments in the Department of Physiology. Dr. Simpson, coming to us with a large experience in one of the best Physiological laboratories of Europe, has proved himself most forceful in his teaching as well as keen and enthusiastic in his research work. Dr. Hunter, also, is a clear lecturer and good teacher. He has taken up the work most

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this subject to the Veterinary students and also to the Arts and Civil Engineering students. The Department of Physiology and Biochemistry gives instruction to the Arts and Agricultural students. All of the departments are furnishing instruction to graduate students.

In the past some of the work for these different classes of students has been given together, but this year, owing to the difference in the preliminary training, it has been found necessary to give the course for Medical students separately from that given for Veterinary students; and the same policy has been found best to a greater or less extent for students of other courses.

As regards the effect of the higher requirements, the Faculty are unanimous in their opinion that the first-year students are doing a higher grade of work, are accomplishing more in a given time, and are in every way more satisfactory than the students without such training.

This year the Faculty of the Medical College has been reorganized on the same lines as the Faculties of the other Colleges of the University at Ithaca, so as to include Professors, Assistant Professors, and Instructors teaching Medical students.

Upon the recommendations of the New York and Ithaca Faculties the Trustees appointed the Dean of the College in New York *ex-officio* member of the Ithaca Faculty, and the Secretary of the College at Ithaca *ex-officio* member of the New York Faculty. This arrangement has aided materially in bringing about a closer correlation of work in New York and Ithaca and a better understanding of the needs in the two places. In accordance with this arrangement the Secretary has attended two meetings of the New York Faculty and the Dean has attended one meeting of the Ithaca Faculty. It is believed that if an arrangement can be made whereby each year some members of the New York Faculty give one or two lectures in Ithaca and some members of the Ithaca Faculty give one or two lectures in New York that still more will be accomplished in correlating the work of the two Faculties. This year Dr. Ewing was in Ithaca and gave a lecture in the course in Sanitary Science, but we have had no other lecturers from the New York Faculty.

The Trustees have established a limited number of Scholarships carrying free tuition in the Medical College, and it is hoped that this will attract to the College a number of students who have attained distinction in other Colleges and who give promise of unusual services in the Medical profession. It is to be hoped that even more can be done in establishing Scholarships and Fellowships. There are each year a limited number of students who wish to spend two or three years in advanced work in one or more departments. To attract more students of this character there is urgent need for at least one or two Scholarships and Fellowships in each department in Stimson Hall.

With the change of the library from the west to the east end of the first floor and the employment of a librarian and stenographer to give her whole time to the College, the facilities of the library have been made more accessible than heretofore. A number of books have been added to the library during the year. The University is well supplied with works upon the general fundamental subjects of the first two years, and more of these works have been kept in Stimson Hall than heretofore seemed advisable. There are still many volumes of journals and special works on Medicine, Surgery, Obstetrics and the specialties, which it would be desirable to have.

In the Department of Anatomy, the work has progressed normally and satisfactorily. The instructors fortunately have all been here for a number of years and are thoroughly familiar with the work and methods. With the entering class, it has been possible to cover more ground and to do the work more satisfactorily than heretofore and in less time. The department, although well supplied with models and specimens, is still in need of many special preparations, topographical dissections, frozen sections, and some special apparatus.

In regard to the work in the Department of Histology and Embryology, Dr Kingsbury reports that the separation of the Veterinary and Medical courses has been found to have a distinct advantage. He further says: "Of the four classes of students taking general or introductory work, the Veterinary student requires most direct supervision and personal attention in his work, while the Medical student, as far as may be judged from the experience of a single year, may be dealt with along broader lines and requires less instruction by college and secondary school methods." But, "contrary to the conclusions one would reach from theoretical considerations, it has been my experience that advanced students require more guidance of a certain kind and make greater demands on the time of the one in charge of their work than any other class." He emphasizes the need of more complete correlation of courses either simultaneous or successive. Something in this way has already been accomplished this year in the course in Organology and more is planned for next year in Neurology. The work of the instructors in the Department has been most satisfactory. Dr. Kingsbury feels that in the future he wishes to substitute for assistants who are giving part of their time to work as students in the Medical course,men whose whole time will be devoted to Histology and Embryology. He says: "As already repeatedly stated I believe that such men cannot be obtained and retained at the present salary of an assistant." The quarters occupied by the Department were this year adequate, though there was no excessive space. The projection and dark rooms have been indispensable to the Department, and, without at any time causing inconvenience, have been of use to the Departments of Anatomy and Vertebrate Zoology. The greatest needs of the Department at present are one additional instructor, and a preparator. The needs in regard to equipment are not great: an increase in the working collection of Histological and Embryological series and a small amount of laboratory apparatus.

In the Department of Physiology, Dr. Simpson says he has been "particularly struck with the earnestness of the students, with their desire one and all to make the most of the opportunities offered them." The work of the instructors and assistants has been most satisfactory. The laboratory was well supplied with a stock of teaching apparatus, practically the whole of which has been utilized this year. The collection of Physiological apparatus has been increased by an entirely new installment of recording apparatus of recent pattern and a number of pieces of special apparatus. A limited amount of new apparatus is still needed. Among other urgent needs of the Department are more adequate facilities for experimental animals, and the full time of a suitable mechanic. In Biochemistry Dr. Hunter reports that, although the chemical worktables were not installed until the middle of the year, the arrangements for the work of the Medical students were not disturbed but the advanced work was greatly handicapped. A considerable amount of apparatus is yet required before the laboratory can be considered even approximately well equipped for the sort of work that ought to be done. It is very desirable also that duplicate copies of certain books and files of chemistry journals should be procured so as to be more readily accessible to this laboratory.

In Pharmacology and Pharmacodynamics much of the apparatus of the Physiological Department is used and the Department is fairly well equipped. A small amount of additional apparatus is, however, needed. Dr. Dresbach has had charge of the experimental work during the year.

In regard to Pathology and Bacteriology, Dr. Moore reports a satisfactory year. Concerning the proposed curriculum for next year and the considerable increase in the work required in Pathology, Dr. Moore says: "The smaller number of students will not lessen the work of the regular course and the additional work called for will greatly increase the work of the instructor." "I am very sure, to give satisfactory courses in Bacteriology and Pathology to graduate students is going to be a much more difficult task than we are inclined to recognize." "It will be impossible to combine the course as at present with the Veterinary students." To care properly for the advanced work included in the new curriculum an additional assistant will be necessary as well as a certain amount of new apparatus.

The courses in Chemistry, Surgery, Medicine, and Obstetrics have been normal and satisfactory.

During the past year a number of investigations have been undertaken by the instructing staff. The following is a list of the subjects of these investigations, some of which are completed, some still in progress:

In the Department of Anatomy during the year, Dr. Kerr has been investigating the occurrence of double ureter in man, the shape, size, and topography of the stomach, the brachial plexus of nerves, the cloaca in birds and reptiles. Mr. Baldwin has been investigating the arrangement of the accessory pancreatic duct in man, the topography of the spinal nerve roots, duodenal diverticula in man, the ducts of the pancreas in the adult, annular pancreas, and the relations of the middle meningeal and femoral arteries. Dr. Hathaway has been investigating the occurrence of supernumary nipples in the male, the origin of the brachialis muscle in man, and the insertion of the other muscles upon the humerus. Dr. Schæffer has been studying the variations of the palmaris longus muscle, and investigating maxillary sinus in the embryo, child, and the adult man, together with its practical bearing. He is also studying the lateral nasal wall in man. Mr. Ingersoll is studying the nasal septum in man, this work being also investigated from the standpoint of Embryology under the direction of Dr. Kingsbury.

In the Department of Histology and Embryology, Dr. Kingsbury, in collaboration with Dr. H. D. Reed, is investigating the columella auris in Amphibia, a contribution to the knowledge of the vertebrate ear, is studying the development of the Amblystoma, and, with Dr. Hilton, the development of the auditory apparatus in Desmognathus. He has reported a case of Hermaphroditismus verus, lateralis in Sus scrofa. Dr. Hilton has published articles upon the peculiar abnormal teeth in jack rabbits, and the occurrence of Batraceseps and Autodax in Southern California. He has investigated the Hyo-branchial apparatus of Typhlotriton, the tracheal supply of the central nervous system of the larva of Corydalis, the early development of Desmognathus fusca, and the development of the larynx. Miss Pauline Hirsch is studying the Degenerations in the Secondary Spermatogonia in Desmognathus. Mr. Bean is working upon the problem of Hermaphroditism in vertebrates, Miss King upon the morphology and development of the cerebrum in the rat.

In the Department of Physiology, Dr. Simpson has reported upon the Wallerian Degeneration in the Facial Nerves, is engaged in investigations upon animal heat, the pressure of the bile secretion, and is investigating the origin of the motor nerves, and, in association with Dr. Hunter, is studying the effect of thyroidectomy in the sheep on the iodine content of the pituitary gland, and, in association with Miss King, the motor localization in the brain of the sheep and the pyramidal tract in the sheep. Dr. Hunter is investigating the basic albumoses obtainable by peptic digestion, the product of long continued pancreatic digestion of proteins, particularly urocanic acid. Dr. Dresbach has been studying blood pressure of the sheep before and after the removal of the thyroid gland, the effect of temperature upon the variations on the contractions of the skeletal muscles, the origin of the beat of ventricular heart strips in Ringer's solution, and the effect of the transplantation of the suprarenal glands, and, with Mr. Brandt, has been studying the action of caffein and theobromine on heart muscle. Mr. Schrock has been studying the origin and termination of the fillet tract in the cat, Mr. Peterson, the afferent paths in the brain and the spinal cord. Miss Reveley has been tracing the cerebro-spinal motor paths in the guinea pig. Miss King in addition to the work done with Dr. Simpson has been working on the cortico-spinal tracts in the rat, the Histological part of her work being done with Dr. Kingsbury.

In Dr. Moore's Department, in addition to the extensive studies in tuberculosis and much diagnosis work, Dr. Moore has investigated the frequency of the elimination of tubercle bacilli from infected cows, and has been working on the diagnosis and etiology of rabies. Dr. Burnett has been making a study on the clinical examination of the blood of animals.

Dr. Tinker has read papers before various Medical societies upon Local Anesthesia in Major Surgery, Results of Operation for Goitre, the Treatment of Lacerated and Contused Wounds and Compound Fractures, Radical Conservatism in the Treatment of Compound Fractures, and the Surgical Treatment of Biliary Tract Affections.

One of the most urgent needs of the Medical College is the establishment of more Assistant Professorships and Instructorships. In the past we have taken as Instructors and Assistants young men with little or no special training, some of whom were taking more or less of their Medical work at the same time that they were teaching in the College. In the future, with graduate students, it will become more and more necessary to have more mature and better trained men as instructors.

Another need of the Medical College is for expert preparators and laboratory attendants. There should be in the Department of Physiology, a mechanic; in Biochemistry, an attendant capable of caring for the supply room and taking care of the stock solutions and apparatus; and in Histology and Embryology, a preparator capable of mounting sections of embryos, and making wax plates. In the Department of Anatomy there is already an embalmer who is being trained to care for and prepare the specimens. All of the departments have felt particularly this year the need of an artist adequately to illustrate the research articles which have been prepared.

Respectfully submitted,

Abram T. Kerr,

Secretary of the Ithaca Division of the Medical College.

APPENDIX VII

REPORT OF THE DIRECTOR OF THE NEW YORK STATE VETERINARY COLLEGE

To the President of the University:

Sir:—I have the honor to submit the following report of the New York State Veterinary College for the year 1908–1909:

FACULTY

The retirement of Dr. James Law in June, 1908, is the most noteworthy event of the year in connection with the instructing staff. In a special report to the President of the University, in August, 1908, I dwelt somewhat at length on the valuable service which Dr. Law has rendered to the University and the Veterinary profession, as well as to the state and nation. The chair in medicine, made vacant by Dr. Law's retirement, was temporarily filled by the appointment of Dr. D. H. Udall of the Veterinary College of the Ohio State University as Acting Professor of Medicine. Dr. S. H. Burnett, who has been for some years an Instructor, has been made Assistant Professor of Comparative Pathology. At present the Faculty consists of eleven men, exclusive of demonstrators and those engaged in teaching animal husbandry, chemistry, histology, and embryology, which are provided for in other departments of the University.

STUDENTS

There has been a steady increase in the number of students since the enforcement of a four-year high-school course as the requirement for entrance. This year there is a total enrollment of 96 students, of whom 38 are freshmen and 4 are graduates. The number of inquiries from prospective students who have their entrance requirements is much larger than at this time last year, which is suggestive of a large entering class next fall.

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Owing to the loss of clinical mat
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warrant the statement that we have sufficient clinical material for the satisfactory teaching of clinical medicine, surgery, and obstetrics. The greatest hindrance to that service now is the lack of suitable buildings for examinations, clinics, and hospital for medical cases.

Effective teaching along practical lines has been greatly enhanced by lectures on special subjects by experienced practitioners. Dr. George H. Berns of Brooklyn, Dr. F. H. Miller of New York, and Dr. David S. White of Columbus, Ohio, have each given a valuable course of lectures on practical subjects in veterinary medicine and surgery. In addition to these there has been a course of lectures given by distinguished veterinarians of the State. These are the important changes and additions that have been put into operation during the year. A number of equally significant changes along other lines are being made. Among these are suitable provisions for veterinary graduates. In addition to the advanced courses which have heretofore been offered in the different departments, special courses for graduates have been arranged in hygiene and sanitation, pathology, bacteriology, and surgery, for next year.

In January a two-day Conference for Veterinarians was held. An instructive program was provided and about seventy-five practitioners of the State attended. This Conference brought out very clearly the positive value of the State Veterinary College to veterinarians already in practice and opened one of the important avenues for its future usefulness. One of the functions of the College is to increase the efficiency of the veterinary service of the State in every way possible.

RESEARCH

The investigations by Dr. Fish into the action of drugs upon the circulation and respiration of the horse have been continued. Research has been started in the same department on serum therapy in canine distemper. Considerable work has been done on the condition of the blood in cases of skin diseases of dogs and cats. Dr. Williams has identified the granular venereal disease of cattle, known in Germany, in this State and is making extended investigations into its relations to abortion and sterility in dairy cattle. In the Department of Pathology there has been considerable research on the etiology and diagnosis of rabies, the elimination of tubercle bacilli from infected cows, and an undescribed disease in cattle due to one of the higher bacteria. The excessive demand on our time for diagnoses has materially hindered research work during the past year.

DIAGNOSES

We have made a large number of diagnoses of animal diseases for the veterinarians of the State and the Commissioner of Agriculture. There have been 404 examinations for rabies and over a hundred for glanders. We have prepared and distributed 25,740 doses of tuberculin, 3,000 doses of anthrax vaccine, and 1,026 doses of mallein.

The Department of Pathology took an active part in the International Congress on Tuberculosis, held in Washington, D. C., September, 1908. Honorable mention by special award was accorded by the Congress to the New York State Veterinary College for its pathological exhibit, and also honorable mention was awarded for an exhibit of a practical method for the eradication of bovine tuberculosis.

A large number of inquiries have been answered and a circular of nineteen pages on the preparation and use of tuberculin has been issued to the veterinarians of the State.

The members of the Faculty have contributed a number of articles to various veterinary journals, reports of societies, and congresses. Dr. Burnett has published a valuable work on the "Clinical Pathology of the Blood of Animals," and Dr. Williams a comprehensive volume on "Veterinary Obstetrics." Drs. Fish, Williams, and Moore have rendered considerable service educationally by giving lectures at institutes, granges, and farmers' gatherings of various kinds, on hygiene and methods for the prevention of animal diseases.

The growing demands upon the College are sufficient to justify the statement that increased facilities are mandatory. The more immediate needs of the College were presented to the last Legislature under four requests: (1) An increase of $5,000 maintenance; (2) $10,000 for the study of animal diseases, on a farm provided by the University; (3) $20,000 for the enlargement of the north wing of the main building; and (4) $130,000 for much needed clinical buildings. Of the four items, the first three were granted. This generous response on the part of the Legislature warrants the belief that the further needs of the College will be met. While we fully appreciate the appropriations made in the interests of the work of this College, the fact must not be overlooked that students can not be trained in *clinical* medicine in an office and lecture room. Suitable equipment and hospital facilities are absolutely necessary to properly prepare veterinary students to render efficient service to the livestock owners of the State. Without the necessary mechanism the desired results can not be obtained.

The Faculty of the College fully appreciates its obligations to the veterinary profession and also to the livestock owners of the State It is the purpose of the College to fulfil as far as it can these obligations by carrying out as effective a curriculum as possible, and by doing as much research work in the line of seeking the cause, methods of prevention, and treatment of animal diseases as the available facilities will permit. The medium through which new knowledge of the nature of animal diseases and the approved methods for their prevention or treatment will reach and benefit the individual animal owner is the veterinary practitioner, who comes in direct contact with the problems. What an efficient health officer is to the health of the people of a community, the skilled veterinarian is to the health of the animals, which is the greatest asset in animal industry. Our first obligation is to make such veterinarians.

Respectfully submitted,
V. A. MOORE,
Director of the New York State Veterinary College.

APPENDIX VIII

REPORT OF THE DIRECTOR OF THE NEW YORK STATE COLLEGE OF AGRICULTURE

To the President of the University:

Sir:—The work of the College of Agriculture for the past year has been characterized on the part of all its officers by great zeal and industry, and on the part of students by the finest college spirit and the best cooperation with teachers. It is a great pleasure to partake in the enthusiasm that is part of an institution in which everyone, professors and students alike, feels that he is engaged in a work that is designed directly to aid his fellows and to contribute its part toward the reconstruction of society.

Registration in the College has grown steadily and rapidly. Following is the number of students for the year 1908–1909 (including only those who register in the College of Agriculture, and not students in other Colleges who may take more or less work with us):

Graduates	61
Regulars	273
Specials	147
Winter-Courses	364
	845
Counted twice	6
	839

The number of students has now come to be so large that we must at once consider the question of limiting the number. If the present legislature does not provide the additional facilities and maintenance that have been requested, we shall be forced, in my opinion, to limit the number of students to 800. I much dislike to limit the number of students, but it is better for the students and for all concerned that we receive only so many as can be handled effectively. This policy in the long run would produce the best results for the students and the State. If the people of the State desire that more students be given opportunities for college training in country life subjects, the relief lies in their own hands.

STUDENT ACTIVITIES

The persons in the College of Agriculture, staff, students, and all, constitute a social group. The institution is trying to work out a real social cooperative structure.

The students have associated themselves together in a number of organizations representing the several teaching and social activities. Some of these are open to farmers and women who have not been students in the College. The following clubs indicate the nature of this association: Lazy Club (Horticulture); Round-Up Club (Animal Husbandry); Synapsis Club (Plant-Breeding); Jugatæ (Entomology); Plant Doctors; Poultry Association; Cornell Chapter of American Society of Agronomy (composed of members of the faculty and graduate students); Agricultural Girls' Club; Cornell Agricultural Musical Clubs, representing the glee club and the mandolin club; the Athletic Advisory Council of the College of Agriculture, representing the track, crew, baseball, soccer football, and basketball interests; Cornell Dairy Students' Association; Cornell Horticultural Union (resident and former students); Students' Association of the New York State College of Agriculture (resident and former students); New York State Drainage Association (essentially not a student organization); The Home-Makers' Conference (open to women throughout the State who wish to join. Winter-Course girls in Home Economics are eligible). The students in the winter-courses have their special clubs in addition, and each year have inter-club debates for the Morrison Winter-Course Trophy Cup. Most of the above organizations are represented and united in the Agricultural Association, which is the oldest association of students in Cornell University, having been organized in 1871.

The Agricultural Assembly, which meets on the first Thursday evening of each month during the College year, is the comprehensive association of the interests of the College, when Faculty and students meet together on a common social basis. The College has its own student oratorical stage, and its own student periodical, *The Cornell Countryman*. The Student Agricultural Extension Committee arranges for meetings of farmers in their local halls, and provides student and faculty speakers who discuss pertinent subjects.

All this student activity should be guided by a sympathetic man who is responsible to the administration of the College. Such guidance should produce results of the very greatest value in the building of character and in the training of young people to work together for the common good. It is with this purpose that I have framed out the field for A. R. Mann, who is in every way well adapted to this work. It represents a new department of activity, but I am convinced that it is capable of being made as important as any regular teaching department, and I hope that it will be maintained and encouraged. It is of the first importance that all the student forces, even outside of regular and recognized classes, be held in hand, and directed into useful and effective effort. This is more important in character-building than the formal work of a recitation-room.

INTERNAL ORGANIZATION

The question of internal organization of departments in a college of agriculture needs now to be considered. The work of a high-class college of agriculture is no longer local. If it does its duty and meets its opportunities, it must cover the State with extension work. This means that some of the officers must be absent from the College a good part of the time. The people are entitled to receive instruction on their farms and at their homes by officers of experience and standing. I conceive that every well established department in this College of Agriculture should contain at least two full professors. One

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departmental divisions in the College o
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to say that we have not yet nearly reach
divisions in this College. This is pa
departments that deal directly with tl
and growing of crops. On the crop sid
two departments of "Farm Crops"
names do not represent units or entities
departments representing such division
fruit-crops, flower-crops, vegetable-cro

On the live-stock side, there shoul
nutrition, animal breeding, stock-farm
division representing the practice an
handling animals. an officer who

voluminous writing on it. The proper study of this subject would entail much expense for animals, lands, equipment, and men; but sooner or later the inquiry must be undertaken. It is useless to begin work of this kind without ample facilities and the assurance that the work will be continuous. At this College, the live-stock interests have grown in recent years and we have no apologies to make as far as we have gone; but the work is far short of meeting the needs of the State.

All the work of the College of Agriculture should be tied together by the two departments of Farm Management and Rural Economy (or their equivalents), the beginnings of which we have already made.

My ideal of a college of agriculture is an institution that stands broadly for rural civilization and that includes within its scope such a range of subjects as will enable it to develop an entire philosophy or scheme of country life, as founded on agricultural pursuits. This means that such an institution must include within its range all the subjects that have to do with the growing, handling, and caring for crops, the rearing, handling, and caring for animals, and all the subjects that underlie the development of good farm homes, together with the social, economic, and educational questions involved. It must handle all the live-stock, forestry, cropping, and other questions. An institution that does not cover this general field is not entitled to call itself a college of agriculture.

If this conception of a college of agriculture is sound, then it follows that the New York State College of Agriculture must be expanded, and it must take in work that is now without its organization. It is now highly developed in some of its departments, but it does not cover the field.

In order to develop any of its work in the most fundamental way, great attention must be given to research, the spirit of the quest for truth dominating it and making it secure. The colleges of agriculture of the United States have little more than begun to do real research work.

ENLARGED FACILITIES

The College of Agriculture is now growing so rapidly, both in its local and extension work, that the mere physical lack of floor space for lectures and laboratories has come to be acute. We are now face to face with the problem either of developing the space and equipment in the College of Agriculture or limiting the number of students who shall be received. Inasmuch as the new interest in country life is only beginning to express itself, it would seem to be too bad for the State to limit the facilities for collegiate instruction and extension work; yet this is a question that the State itself must settle. We cannot be expected to receive more students than can be accommodated with the facilities that the State provides.

Great pressure is now beginning to be felt in our animal husbandry work, including in that phrase the work both of Professors Wing and Rice. The location of the new barns far to the eastward makes it imperative that the instruction given by Professor Wing's department be housed in that direction and removed from the present College compound. This means that not only must additional barns be provided, but that a new animal husbandry building must be erected somewhere in the neighborhood of the barn area. The Poultry Department is very much cramped in its present quarters, and it has wholly outgrown its facilities. This Department should have a large building for class rooms, laboratories, and offices. At least twenty acres, and probably more, should be provided for the use of the Poultry Department. This means that this Department must also go far to the eastward, and that new buildings must be provided somewhere in that direction. Enlarged quarters and facilities for the Department of Poultry Husbandry is probably the most imperative departmental need at present.

The Agronomy building should be extended to double its present capacity. You will recall that in the original plans the building was considerably larger than at present, it being cut down to come within the funds available. This building houses several departments and is the most congested part of the College buildings at present.

The Department of Farm Mechanics is in great need of room and equipment. It now occupies one small end of the basement of the Agronomy building. If this Department is to grow, it will need to have a building and equipment of its own. Machinery and implements require much room not only for storage, but they demand large laboratory space if students are to work with them effectively.

The Home Economics work is now well established in the College, and is growing. If it at all adequately meets the needs of the State it must have a separate building of its own. There is the greatest necessity that means be provided for training the farm woman in home-making, nutrition, furnishing, and all else that goes to make up effective woman's work. I have long felt that the main building of a Home Economics department should be modeled somewhat after a large and commodious farm-house, in which an ample domestic chemical laboratory could be maintained, and with suitable rooms in which instruction in decoration and furnishing and household arts could be given and illustrated. This Department is now housed in very small rooms on the top floor of the Main building, and is much crowded.

We are not meeting our responsibilities in respect to the training of teachers for rural communities. We have had the nucleus of a Normal Department for some time, but it is not growing in the way that it should. It has practically no offices of its own, and has no laboratories or lecture rooms. I have long felt that such a Department should have an actual rural school in operation as a part of its laboratory equipment, and have been greatly disappointed that my efforts of many years in this direction have practically failed. I urge most careful attention to this Department of the College of Agriculture.

Quarters must speedily be secured for the Department of Rural Art. This Department has never had a class-room. In fact, it has no place in the College of Agriculture except one small office that has no window. The drafting work is now done in the drawing rooms of the College of Architecture. This arrangement has been satisfactory to us and we should be glad to continue it; but the time is practically at hand when, because of the growth of both the College of Architecture and of our Rural Art work, other quarters must be provided for the drafting. Plan work of the kind that a landscape architect must do requires large space. I do not think that the importance of this Department has generally been appreciated, but I am convinced that we must develop the attractiveness of the scenery of the open country if we are to make rural life as attractive and satisfying as it is capable of being. The purpose of our Department of Rural Art is not only to train landscape architects, but also to develop a point of view in all our students on the necessity of good surroundings in rural homes, school grounds, churches, cemeteries, highways, and all other spaces. There is a growing demand for our advice on these matters from farmers, school officers, and others. It is not the purpose of the Rural Art Department to do the work that lies properly within the field of the professional landscape architect or landscape gardener. The development of rural art really lies mostly outside the field of professional practice and comes within the scope of the activities of an educational institution. Any awakening of public sentiment as to the necessity of better surroundings in the farming country should increase the general demand for professional practice as well as be of inestimable value to the people themselves. I have long had in mind a low building of the bungalow type neatly placed in an attractive planting, which should be the home of our Rural Art Department, from which should radiate the best ideas on the improving of country surroundings.

In this connection I desire to call attention to the fact that on our University farms there should be model farm houses of different sizes and costs. These houses should be used for our farm workmen and others employed by us, the extra rooms, if any, to be rented to students. These houses should represent the best art and practice in rural architecture. Within a generation, practically all the farm buildings in New York State must be rebuilt, or remodeled, not only because they are largely old or in poor repair but also because they must be adapted to new conditions. I do not know of any other agency than this College of Agriculture that shall lead in giving advice on this very important subject. I would not invade the field of the practicing professional architect; but the practicing architect is not likely to take up farm architecture as a business because the fees would be too small to make it attractive to him. This Department, like that of Rural Art, must arise from some institution maintained by the people. All this naturally demands a Department of Rural Architecture in the College of Agriculture.

I wish also to call attention to the very unsatisfactory condition of our Agricultural Chemistry so far as facilities are concerned. We have only one professor in this great field and he is housed in rooms that are entirely insufficient for the best work, and the smallness of which prevents any adequate growth of the Department. As compared with the leading colleges of agriculture and with the necessary demands of our work, our Agricultural Chemistry needs to be at least trebled, together with provision for its steady growth in the future. What policy should obtain in connecting this work with the Department of Chemistry of the College of Arts and Sciences, is also a question that should now be considered. We should soon determine whether the Agricultural Chemistry is to remain with the general University Chemistry or whether it is to have quarters by itself. I feel that we cannot long maintain our standing without developing our chemical work far beyond its present extent and scope.

The above sketch suggests the most pressing needs in the way of new buildings, all of which are needed at the present time in order to make our work thoroughly effective and to enable us to do what the people of the State are asking us to do. Personally, I should feel like acquainting the legislature at once with the whole situation and outlining an entire program. If that is done, other needs than the above must, of course, be included. I mention only those that seem to be at the moment most necessitous.

I assume that means will be taken to complete the greenhouse structures, which are now in the process of being begun, and also to extend the barns from year to year; and if the present legislature does not provide an auditorium, the necessity for it should be pressed again at the next session.

OUR REMOTE LANDS

It should be understood that the New York State College of Agriculture labors under special difficulties in respect to its farms. The fact that the College buildings and the University in general are separated widely from the farm land constitutes such a handicap that I fear it will be impossible ever to develop the most satisfactory college of agriculture under our conditions. Farms are laboratories. They need to be in observation by students continually and we must develop such an educational process as will take students out-of-doors and into contact with the actual objects, conditions, and affairs. The buildings of the College of Agriculture are on a narrow isthmus with no cultivable land on either side or either end. The necessity to develop the buildings of the animal husbandries (including general livestock and poultry) on the Preswick farm, and the experimental plats on the Mitchell farm, removes the larger part of our farm operations beyond the effective reach of students. Even if, as proposed, some quick means of communication, as by trolley, should eventually be provided it will nevertheless be at the best only a makeshift, and will not enable us to develop educational processes from the land in the most effective way. The great difficulties of the dismemberment of the College buildings over a long and narrow strip of land will become more apparent as time proceeds. There are practically no areas suitable for gardens, specimen plants, test grounds, and the like, about the Agricultural buildings. On the back, to the north, the land is not cultivable and is needed for campus, and on the south the area has been taken entirely by the athletic fields. I am aware, of course, that this condition cannot now be corrected; but I think it my duty to call attention to this very real obstruction in order that in the future development of the College the matter may be in mind and every possible means may be taken to reduce the handicap, even though it cannot be removed.

Aside from the difficulties with the remoteness of lands, the separation of the buildings over such a long stretch of territory will impose difficulties that can scarcely be overcome without injury to the work of instruction.

EXTENSION WORK

There is the greatest necessity for this College of Agriculture to conduct Extension Work on a broad basis and under a definite and well-considered plan. At present, we are only touching the problem here and there. New York State should start out a thoroughgoing survey to determine what are the native and actual agricultural resources of the State. A definite program should be made to which the College can work systematically for a series of years. I do not see how the best progress can be made in developing the internal resources in the State unless we have knowledge of our actual conditions and take stock of farms, soils, wood lots, streams, schools, rural churches, country organizations, markets, social and economic conditions, and all other factors that underlie a worthy rural civilization.

At the same time we must undertake to aid the farmers of the State by attacking their problems directly on the farms where they occur. This work of itself demands a large force of well trained men, and the people are constantly making more demands on us for this purpose than we are able to satisfy.

A large part of the responsibility of keeping New York near the front rank as an agricultural state falls on the College of Agriculture. Our officers are willing and glad to assume the responsibility, if they are given means with which to work.

Demonstration and test work on farms, soil and other surveys, reading-courses, nature-study, agriculture in the schools, work with teachers, boys' and girls' clubs, work with the fairs, lectures, inspection of herds, orchards, and other farm properties, the giving of personal advice on occasion, correspondence with the people on all lines of agricultural subjects—these and similar activities constitute the proper and necessary Extension Work of the College. There is every indication that this work, in which this College has so long held a leading position, must be curtailed rather than extended; and this would be a direct loss to the State.

APPEAL TO THE PEOPLE

I think the time has come when this College of Agriculture should throw itself directly on the people of the State, acquainting them with the work that needs to be done and letting them feel the responsibility to see that means are secured for carrying it forward. The responsibility must rest with the people and they must be made to understand that it is so. The people, also, should have more direct voice in the management of the College. We are not engaged primarily in developing an institution, but in conserving the welfare and developing the internal resources of the State. The legislature does not yet realize that a college of this kind should become a regular part of the State program. It is not merely another institution, competing with those already in existence, but a new kind of enterprise having for its object the betterment of the State and the training of young men and women to live hopefully and resourcefully in the country.

I wish to repeat, what I have so many times expressed, that we are beginning a college of agriculture, not completing one. Few persons even yet realize what aids an institution of this kind will contribute to the welfare of the future. I am in position to appreciate this, for the most urgent requests are constantly coming to my desk from all departments in the College for the means to do useful work. These are all unselfish. They are not requests to empower an officer to build up his department, but to enable him to do work for his fellows all over the State. I am powerless to provide the means, and I see the opportunities pass and the men grow old and the work of the people remaining not done. I should have liked the opportunity to have gone directly to the people with a plan complete enough to have appealed to their imagination.

Respectfully submitted,
L. H. BAILEY,
Director of the New York State College of Agriculture.

APPENDIX IX

REPORT OF THE DIRECTOR OF THE COLLEGE OF ARCHITECTURE

To the President of the University:

Sir:—I have the honor to submit the following report for the College of Architecture for the year 1908–09:

The attendance in the College has increased from 100 students last year to 133 this year, thus bringing about the condition of overcrowding that I ventured to predict in my report of two years ago as a possibility. Inasmuch as the capacity of the drafting rooms in White Hall is so sharply and definitely limited this is a serious problem.

The success of the work under present conditions is unquestionably due in large measure to the great drafting room in White Hall that has permitted all of the students in the elements of architecture and design to work in close touch with each other. This close contact of the men and classes gives unlimited opportunity for comparison of work, exchange of ideas, mutual criticism, etc., and makes possible more satisfactory results with less of formal criticism and instruction by the regular teaching staff than would be possible otherwise. In my opinion any plan requiring separation of these classes would make impossible the continuance of the present high standard of work in architecture. In other words, the problem involves not only the question of room, but also that of cost and efficiency of instruction.

Since we have been in White Hall the students in landscape design have done their work in the drafting room with the students in architecture. Only their small number has made this possible, and even so they have been crowded and buffeted about this year in a way that must have been exceedingly trying and only tolerable because of the association with things so directly valuable to their work, such as the library and the work in architecture.

I am unable now to see any possible way whereby these students can be provided for in White Hall next year, but their going will be a distinct loss both to them and to us, because of the very close relation between landscape design and architecture. The bringing together of the work in these two subjects has helped the architects by offering constant suggestion, and I believe that the relation has been equally helpful in the same way to the landscape students. If the separation is inevitable under present conditions, I trust it may not be accepted as a permanent condition, but that any larger plan for the future may contemplate as a matter of course the housing of the students in landscape design with those in architecture. I do not wish to be understood as suggesting any change in organization, as that question is not necessarily involved from the educational point of view.

Whether or not the increase in attendance will continue it is impossible to forsee; but I see no reason why it should not, though the rate of increase can hardly be expected to remain at 30% a year. The advance in tuition from $125 to $150, though still leaving our tuition lower than in the other eastern schools, may have some slight effect upon students hesitating between an eastern school and a state college where the tuition is nominal, and upon that very small class who through indecision between architecture and engineering may have been influenced heretofore by the lower tuition in architecture. These, however, are probably so few in number as to be negligible. The effective factor in the situation is the tremendous art awakening throughout the country headed by the architects whose profession is in consequence taking a relatively higher place in the fine arts than ever before. This adds attractiveness in a social and business way to a profession already very attractive in itself. Such a condition must continue to attract more and better men and to stimulate higher and better training; and the only reason for expecting a lower rate of increase in the future is that Cornell may have been getting slightly more than her proportion in a movement that has been general.

I have no hope of being able to house the College of Architecture under normal development in the present quarters in White and Franklin Halls for more than another year, or two years at most. The room in both buildings probably will be used next year to the absolute limit of capacity and after that we must either have enlarged quarters or definitely limit the number of students to be admitted. The latter course, while undemocratic and not altogether in keeping with Cornell spirit, would be much better than to sacrifice standards by a further division that would separate the classes in design by removing a part of them to a third building.

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There are some serious questions
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the College and the library communicated with the office of the Director, as in Lincoln Hall, the problem was not serious; but the changed conditions demand the services of a librarian whose duty shall be to remain in attendance throughout the day and who shall have no other work than to care for the library and to consult with students in the use of books and photographs

In the matter of equipment one of the pressing needs for the work in design is a good collection of casts of architectural details, representing in architecture what the museum in Goldwin Smith Hall represents in classic archæology. This, carried to its logical conclusion, would be an enormous undertaking, but it is something that can easily and profitably be commenced in a small way and is one of the things to be taken up seriously in the further development of our work.

During the past ten years there has been, principally in University circles, more or less criticism of the courses in architecture based upon the wholly erroneous assumption that the work in mathematics and engineering has been materially reduced to increase the work in design.

It is true that important changes have been made in the curriculum, but in the making of them both construction and design have been regarded as absolutely fundamental and inseparable in architecture, and the time given to mathematics, engineering, etc., has been increased, not decreased.

A brief resumé of the changes in the curriculum will be helpful here as showing that the increase in the work in drawing and design has in no case been made at the expense of the work in mathematics and engineering. Where reference is made to University hours it is to be understood that they have in all cases been reduced to the two-term system.

As late as 1893 there were included in the curriculum of the College as much as 20 hours in language and mathematics that are now required for entrance. In the early years of the course, moreover, a great deal more time than was necessary or profitable was given to graphics, that is, linear and projective drawing in its various aspects. Again, prior to the general reorganization in 1897, from 10 to 15 hours were given to such subjects as physics, chemistry, botany, geology, etc., all valuable subjects but some of them less valuable than other work in architecture; consequently this work has now been reduced to 4 hours in physics and 3 hours in geology. It is largely the time thus gained that has been given to drawing and design to strengthen this work with a minimum loss in other directions.

Now as to mathematics and engineering. Prior to 1900 the time given to higher mathematics never exceeded 6.66 hours. In 1900 the time was increased to 10 hours and so continues, though, as a matter of fact, the consensus of opinion among educated architects seems to be that the higher mathematics could very profitably be replaced by other general Arts and Science subjects, except in the case of students who are specializing in engineering.

In the matter of engineering, from 1880 to 1896 the total number of hours given to this work varied from 5.33 to 10.66, with an average of about 8.3 The number of hours given to materials and general construction varied from 4.66 to 14, with an average of 8 and a small fraction. The average time given to engineering and construction combined, from 1884 to 1897, was approximately 17.3 hours. Since 1900–01, on the other hand, the minimum time given to engineering in any year has been 7 hours, the minimum given to materials and construction 12 hours, the minimum total in any one year 20 hours. Instead, therefore, of a reduction in the time given to these subjects the minimum in any year since 1900 (and this is less than the present requirement) shows an actual increase of 50% in mathematics and an increase of 15% in engineering and construction combined over the average for 13 years when the College was supposed to be especially strong in engineering and weak in design.

Moreover, courses in the theory of construction, besides being strengthened by the additional time given to them, will now receive the further advantage of the new plan mentioned above whereby this work is to be placed in charge of one man, a specialist in architectural engineering, who can correlate them much more effectively than has been possible under former conditions.

The following comparative table will give a fair idea of the character of the studies comprising the curriculum at various stages in its development. The classification of subjects is somewhat arbitrary, and there is considerable room for variation in placing subjects under the headings, because it is not always easy or even possible to tell from information in the Register just what certain courses really are. For example, stereotomy in one place is an engineering subject treating of the theory of the arch, while in another it is graphics as applied to stonecutting and not engineering at all. The figures, however, are quite accurate enough for a fair and honest representation of comparative values. 1884–5 is taken as the starting point because by that time the course was well organized and past the experimental stage and from that year developed gradually and without radical changes up to 1896–7. A complete reorganization was effected in 1897–8 and the courses shown under 1899–00 and 1908–09 indicate conditions following this reorganization. Hours are given on the two-term basis.

	Mathematics	Science	History	Graphics	Drawing and Design	Engineering	Materials and Construction	Miscellaneous
†1884–85 (hrs.) .	6.6	14.6	12.3	13.3	32.6	8.	4.3	4.3
1896–97 " .	6.	16.3	18.	6.	51.6	7.3	14.	10.6
1899–00 " .	6.	1.3	12.	6.6	85.3	6.6	14.3	5.3
1908–09 " .	10.	*4.	14.	6.	74.	9.	*12.	6.

†The total number of hours indicated for 1884–5 is less than in the other years because courses then in the curriculum and now required for entrance are omitted.

*Geology, 3 hours, is classed with Materials rather than with Science, because of the special character of the course.

The College of Architecture at the time of the writing of this report has not adopted a five-year course, though such a course, to parallel the four-year course, has been under consideration for some time. It does not seem to me, however, that a five-year course similar to those adopted by the Engineering Colleges will be any material advance, for the simple reason that it would offer practically nothing in the way of study or incentive that has not been freely open to students entering the College of Architecture at any time during the past ten years. At no time within my knowledge of conditions has a student wishing to enter Architecture been refused admission when he could meet the Arts and Science requirements. In some cases where the deficiency in specific subjects has been small the student has entered Architecture directly, making up the deficiency by taking extra work in his regular course or in the Summer School. In other cases he has entered Arts for one year and then transferred to Architecture, or he has taken five years in Architecture and made up the deficiency by electing work in Arts and Sciences.

It seems to me that if a five-year course is to accomplish its purpose by inducing students to remain in the University for more training than the four-year course gives, it must do something more than duplicate opportunities that already exist Under present conditions the man who comes here for a five-year course with preparation in every respect equal to that of the man entering the four-year course gets no recognition whatever of his extra year's work in the University and, from his point of view, why should he bind himself to a five-year course when he can get the same thing, his diploma, with four years in the University and one or two terms in the Summer School? This is a narrow point of view, but unfortunately, youth has not the background of experience to rise to the broader point of view that makes the training the thing and the diploma an incident. So long as degrees are conferred they are bound to be an important consideration from the viewpoint of the student and the public, and if we are to make the five-year course effective it must be recognized by a degree in addition to or differing from the degree given for the four-year course. This at once gives the student an incentive to elect the longer course and holds him to it.

In some respects the College of Architecture can never accomplish in the University what it ought until there is a distinct change of policy on the part of those who have charge of the so called general culture courses, a change that will recognize at least a fair amount of work in the fine arts and the history of the fine arts as having cultural value sufficient to warrant the removal of present restrictions on their election. These restrictions are doubtless quite warrantable in their application to purely technical subjects, but they should not be applied in such a way as to prevent the early election of such subjects as freehand drawing and the history of architecture and the fine arts in general, simply because these courses happen to be given in a professional College. Drawing, in order to be taken profitably, should be elected early in the course, and in historical subjects enough time should be allowed to permit their election in sequence.

One of the most hopeful indications of a change in sentiment is the recent announcement of the Frances Sampson Fine Arts Prize, by Professor Martin W. Sampson, head of the Department of English, to be awarded for appreciation of the fine arts along the lines I have in mind. Appreciation is the essence of the whole matter, but without knowledge—not necessarily accomplishment—there can be no appreciation.

President Eliot of Harvard in a recent address in Boston is quoted as saying:

"Art education has never been adequately introduced in our schools and colleges. If art were taught in all our school and colleges there would gradually grow up in America a large number of people whose artistic sense would be developed so that in a subsequent generation there would be an inherited taste for art and a new capacity for enjoyment. * * * * Drawing is as necessary, I was going to say, for all the purposes of life as language. As a matter of fact, drawing is a better mode of expression than language."

In an address delivered a short time ago in Washington, President Butler of Columbia said:

"That man to whom art is a *luxury* is uncivilized. That man to whom art is a *necessity* is civilized."

That the fine arts will at an early day receive prominent recognition in the curricula of all colleges and universities making any pretensions to liberal culture is inevitable under the present forward movement in America, and Cornell should lead rather than follow.

Respectfully submitted,
CLARENCE A. MARTIN,
Director of the College of Architecture.

APPENDIX X

REPORT OF THE DIRECTOR OF THE COLLEGE OF CIVIL ENGINEERING

To the President of the University:

SIR:—I have the honor to submit the following report for the College of Civil Engineering for the year 1908–09.

The registration for the year, as shown by the class roll-calls has been as follows, classifying according to subjects taken rather than by official standing as in the Register:

	First Term	Second Term
Graduates	3	3
Seniors	130	128
Juniors	135	128
Sophomores	139	124
Freshmen	174	138
Special Students	2	2
Total	583	523

This list includes 46 graduates in the undergraduate courses.

Of the new students, 7 entered the freshman, 20 the sophomore, 12 the junior, and 7 the senior class.

This shows a healthy growth from last year, the registration then being 533 for the first and 479 for the second term, or an increase of 50 and 44 respectively.

Instruction has also been given to students from other Colleges as follows:

	First Term	Second Term
Sibley	354	873
Architecture	73	4
Arts	26	30
Agriculture	3	5
Graduates	5	6
Total	461	918

For the purpose of making a more even distribution of the work of the College there was created at the beginning of the year a Department of Topographic and Geodetic Engineering, in which were placed all surveying courses. This change was made necessary by the unprecedented growth of the College, the number of students in attendance having increased from 252 in 1902–03, to 511 in 1907–08. Previous to this change Professor Crandall had had in his charge all the courses in Railroad Engineering, those in Geodesy and Astronomy, the Surveying courses, and Specifications and Contracts, certainly an overburden if one carefully considers the amount of work involved in each of these subjects. The change has left Professor Crandall free to devote all of his time to the Department of Railway Engineering and the subject of Specifications and Contracts. The importance of this to our students cannot be overestimated to say nothing of relieving Professor Crandall of a part of his burden. It now furnishes opportunity for every student pursuing these subjects to have the benefit of his knowledge and long experience in these fields which have made him a leading authority in questions of transportation and contracts.

Professor David Molitor was appointed to take charge of the Department of Topographic and Geodetic Engineering. He comes to the College after having spent twenty-two years in the practice of the profession of Civil Engineering, during which he has had a varied experience, devoting considerable of his time to the practice of surveying.

There was also appointed to this Department, Assistant Professor S. L. Boothroyd, who has had a valuable field experience in surveying and practical astronomy and in teaching these subjects.

Assistant Professor O. M. Leland who has been with the College for several years engaged in teaching the subjects of Geodesy, Astronomy, and Cartography naturally fell to this Department. He and the gentlemen just named form a strong permanent organization for the conduct of the work of Surveying in all its branches.

To give a clear conception of the work they will have in hand it may be well to state the courses given during the present school year. The first semester the entire freshman class, numbering 174, were given their Elementary Surveying, a course of three hours per week. The entire senior class, numbering 130, had Geodesy and Astronomy, a course of five hours per week. The second semester the entire sophomore class, numbering 124, were given a three-hour course in higher Surveying. The entire senior class, numbering 128 students, were given a two-hour course in Cartography, and in addition 114 Sibley students were given a special two-hour course in Surveying for Mechanical Engineers, making a total of 670 students in this Department within the year.

The Department of Applied Mechanics and Hydraulics under Professor Church was materially strengthened by the appointment of the following Assistant Professors to this Department: Messrs. E. W. Rettger, C. L. Walker, K. B. Turner, and S. G. George. Each of these gentlemen has had valuable experience in teaching these subjects and the Department has been materially strengthened by their addition. The result will be greater efficiency in the teaching given in Mechanics and Hydraulics, besides giving to Professor Church the assistance he has long needed.

The changes in other departments during the year were minor.

In regard to the needs of the College, I feel it my duty to emphasize my views given in my report of last year, p. lxxii, that we should put forth every effort to strengthen our course in Sanitary Engineering even though much has been accomplished within the year. It must of necessity be one of the large and important engineering fields of the future. We should also aim to strengthen our work in practical Hydraulics, Hydraulic Construction, and Hydro-Electric developments.

I feel further, that I cannot urge too strongly the enlargement of Lincoln Hall. During the year the building has been greatly overcrowded, handicapping in numerous instances the progress of the work of the College. We should have much more laboratory space, a larger library and reading room, a greater number of recitation rooms, and especially a lecture room that would seat about two hundred students or one entire class.

Respectfully submitted,
E. E. **Haskell**,
Director of the College of Civil Engineering.

APPENDIX XI

REPORT OF THE DIRECTOR OF THE SIBLEY COLLEGE OF MECHANICAL ENGINEERING AND MECHANIC ARTS

To the President of Cornell University:

Sir:—I have the honor to submit the following report of the work of Sibley College during the year 1908–9.

A period of five years under the present administration in Sibley College is just completed. During this time the Faculty has been striving to improve the work of the College so as to keep pace with the advances in engineering practice and engineering teaching. The entrance requirements have been raised and a more logical arrangement of subjects has been made. There has been a gradual betterment of the quality of instruction through the introduction of improved methods and the increase in the number and strength of the Faculty. Much careful thought and effort have been given to raising the grade of scholarship of the students in Sibley College. The introduction of the Class Adviser system has given more personal supervision of the students' work and this, together with the system of recording attendance, introduced last year, and the work of the Delinquency Committee, has resulted in more systematic and concentrated effort on the part of the students. A constant effort has been made to interest the students of Mechanical Engineering in subjects outside their technical course and the introduction of the optional five-year course, including one year of work in Arts, now makes it possible for students to obtain a broader training together with their technical work.

The work in experimental electrical engineering was taken over into Sibley College four years ago and the present Electrical Laboratory is the result of the growth of these four years. This course now supplements the excellent training received by engineering students in the Department of Physics, with the more specialized work in the applications of electricity to engineering problems. This laboratory is now full grown and only needs more adequate housing and such additions to material equipment as are necessary to keep abreast with the profession. This laboratory, which has been, since its organization, connected with the Department of Experimental Engineering, is now transferred to the Department of Electrical Engineering.

The appointment of Prof. H. H. Norris as Head of the Department of Electrical Engineering insures efficient and progressive work throughout the Department.

In the Machine Shop there have been five years of steady progress in the elimination of machines that do not represent present practice and the substitution of machines of the most modern design. This change is one that will go on continuously in the future but at a slower rate since the more rapid recent changes have brought the equipment up to present standard.

The Wood-working Shop has been provided with a complete outfit of new wood-turning lathes and work-benches, all of which have been constructed in Sibley College. If this equipment had been bought in the market, the cost would have exceeded three thousand dollars, whereas the actual cost was for material only, and did not exceed four hundred dollars.

In the Foundry a trolley system has been introduced for the handling of molds and the transfer of materials. The molding machines mentioned in last year's report have been in successful operation and other devices for the production of complicated castings in large numbers at low cost have been introduced. It is now proposed to place an order for another molding machine which represents the latest development in the art.

The main object in the development of the shop work has been to provide for the teaching of the principles underlying economic manufacturing, since an understanding of these principles is vital to a student who is to become a practicing engineer. In connection with this work the shops have undertaken a certain amount of commercial work for outside firms, to help in illustration.

In the Department of Machine Design there has been steady development until now there is a logical arrangement in the work of drawing and design and very great excellence in the work of instruction throughout the course.

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Laboratory, instead of being, as it should be, in adjacent rooms of one building, is located in four widely separated places. The Mechanical Laboratory long ago outgrew the building assigned to it and its work is carried on under great and increasing difficulties. The Machine Shop, by reason of careful rearrangement, will serve for the junior classes of the next two years but not for succeeding classes at the present rate of increase. The Foundry needs a fifty per cent. increase in floor space.

Because of these conditions it will be necessary soon to provide increased building accommodations or to limit the number of students in Sibley College.

Respectfully submitted,
ALBERT W. SMITH,
Director of the Sibley College of Mechanical Engineering and Mechanic Arts.

APPENDIX XII

REPORT OF THE DIRECTOR OF THE SUMMER SESSION.

To the President of the University:

Sir:—I beg to submit my fourth annual report as Director of the Summer Session for the year 1909.

In presenting this report I find it unnecessary to make extended comment on the work of this year. No radical changes have been made in the program, which has kept substantially to the same lines which have proved successful in the past. The special mention of certain departments of instruction should not be construed as implying that the others are in any way less successful.

THE TEACHING STAFF.

The present year the Faculty numbered 79, of whom 42 are considered of professorial grade. Of this number 62 are regular members of Faculties of Cornell University, and 17 come from other institutions. Of these specially appointed for the Summer Session Messrs. Bacon, Clendenin, Condra, Furlong, Hawkins, Mann, Stebbins, and Woodburn have been members of the Faculty in previous years. They brought to their work this summer the experience thus gained, and an undiminished interest and energy. New appointments for 1909 were Dr. J. C. Bell, of the Brooklyn Training School for Teachers, for Education; Mr. Harold H. Brown, of the Stuyvesant High School, New York City, for Drawing; Mr. Philip R. Dean, of the Curtis High School, New York City, for Mathematics; Dr. Clarence O. Harris, of Illinois College, for Latin; Dr. F. W. C. Lieder, of Harvard University, for German; Mr. Addison B. Poland, Superintendent of Schools, Newark, New Jersey, for Education; Dr. Maurice H. Robinson, of the University of Illinois, for Economics; Dr. Albert Schinz, of Bryn Mawr College, for French; Mr. Harry E. Wood, Supervisor of Manual Training, Indianapolis, for Industrial Education. In earnest and devoted service to the work of the session no distinction can be made between the regular members of the University staff and the others. All have done everything, and even more, that could be asked of them. The splendid spirit of interested attention to the needs of individuals as well as classes, the readiness to sacrifice personal interests, and to give in generous measure time to the problems of the student and teacher have been no less than in other years. This spirit is the subject of frequent comment of the most appreciative kind on the part of the students, and to it our success is largely due.

STATISTICS OF ATTENDANCE.

	1903	1904	1905	1906	1907	1908	1909
Teaching Staff	54	60	58	62	68	71	79
No. of Students	470	718	619	642	755	841	889
Cornell University students of previous year	259	246	294	225	288	372	375
Former Cornell Students	63	59	59	85	92	84	116
Graduates of Cornell University	13	23	25	23	19	15	22
Graduates of other colleges	85	97	100	129	131	125	141
Non-graduates from other colleges	45	60	59	70	95	107	62
Teachers	154	*356	218	263	302	294	331
Holding first degree	90	95	111	133	123	173	153
Holding second degree	23	25	19	21	27	26	28
New York State	201	244	238	288	320	326	372
Outside New York State	268	*474	381	354	435	515	517

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*Includes 145 Porto Rican teachers admitted under special arrangement with the U. S. Department of Education.

Of the teachers in attendance there were engaged in teaching in:

	1905	1906	1907	1908	1909
Colleges	27	27	22	32	40
Normal Schools	12	15	18	12	15
High Schools	61	96	111	147	129
Grammar or Elementary Schools	93	95	120	82	131
Private Schools	5	26	17	8	11
Superintendence and Supervision	3	6	14	13	21

STATISTICS OF ATTENDANCE.

The geographical distribution of students is about as last year. Forty-three states and sixteen foreign countries are represented. Among the teachers there is an increase in the attendance from the South Atlantic States, and from Pennsylvania and Maryland. This is gratifying, and encouraging in view of the fact that universities lying nearer to the homes of many of these people are now quite generally carrying on summer work. The attendance of members of college faculties is steadily growing. The number of high school teachers shows a slight falling off this year, although it is still larger than in any other year except 1908. This is rather surprising, but may be merely accidental. No definite conclusion as to its causes could be drawn without a longer period of observation. On the other hand the falling off in the number of grammar school teachers noted last year has been more than made good. As against the figures for this class prior to 1908 this year shows a normal increase. The number of our own graduates attending is still small. Regarding this and other matters directly connected with it, I beg to refer to the report of last year, page lxxx, and to say that I still hold the convictions there expressed. The problem of increasing the number of Cornell graduates directly engaged in public education seems to me one of the most important now before the University.

The instruction given in the Summer Session may be in a general way divided into three different kinds: elementary, intermediate, and advanced. It is not possible to classify students in a similar way on the basis of the nature of the work they may be taking. For example, a considerable number of mature persons, with perhaps several years of successful teaching experience, come every summer to take one of the elementary courses in language. On the other hand we have younger students still in college who may be pushing forward to advanced work in some one special line.

In response to a very rapid increase in the use of internal combustion engines for various purposes, it has been thought wise to introduce a series of courses treating of the design and operation of such engines and also of the methods of producing and transmitting the fuel supply for their operation.

Recently the Departments of Naval Architecture, Marine Engineering, and Railway Mechanical Engineering have been discontinued. This does not imply any criticism of the able and earnest men who have worked so effectively here as teachers in these Departments. About three and one-half years of the course in Sibley College are filled with the fundamental subjects that underlie all engineering, and this is considered as the most vitally important part of the engineer's training. There is left, therefore, at most only about a half year in which the student may devote his time to some specialty. It is believed that it is wiser to devote this time to some broad specialty like Electrical Engineering, Steam Engineering, or Internal Combustion Engineering, rather than to such narrow specialties as those represented by the discontinued departments. It is probable that graduate work in Naval Architecture and Marine Engineering could be carried on successfully in a technical school located in a town with a large ship-building company, if the company were willing to cooperate. Also in a large railroad center, through cooperation, a graduate course in a technical school might be made successful. But Ithaca lacks these advantages of location. Moreover, there is a feeling in Sibley College that graduate work in engineering can be most effectively done in practice where engineering is carried on for a profit.

The improvements in courses and methods for which the Faculty has been striving, have been in operation during the past year; the higher entrance requirements have been enforced, a higher standard of scholarship has been attained, and a more logical arrangement of the work has been made. It is believed that in the immediate future only minor changes will be needed, though there is a steadfast purpose in the Faculty of Sibley College to keep alive to the needs of the student who is to enter the rapidly advancing practice of modern engineering.

I wish to call to your attention one very serious, pressing need in Sibley College. Every resource has been exhausted in the effort to render the building accommodations adequate for the increasing classes in shops and laboratories. Basement rooms, heretofore considered only fit for storage, have been utilized. The Electrical

School, New York City, who brought into the work great enthusiasm and practical experience. It seems likely that there will be a steady demand for similar instruction. The increase in the courses in Chemistry from 5 to 11 in 1908 has been followed by a further increase this year to 17. The number attending (150) warrants a further extension next year, with which we shall have a satisfactory representation of the most important fields in this science. In Geography a course this year was added in Industrial Geography. This met with an immediate response, and over 40 students attended the class, which must certainly be continued. In the general Department of Industrial Education we were able to offer this year a more comprehensive and fuller arrangement of work than ever before. The numbers attending have increased, and the quality of the students shows a steady improvement. In connection with this work we have had valuable assistance from Mr. Arthur D. Dean, under whom it was organized four years ago, and who is now Chief of the Division of Trade Schools in the New York State Department. The general direction of the work was in charge of Professor Kimball and its success is due in no small measure to his remarkable knowledge of the entire field of industry, and of education as related to it. Dr. Frank Rollins, Second Assistant Commissioner of Education for New York State, who has charge of secondary education, has given us the benefit of his counsel and help in different ways. In the closely related Department of Drawing and Art, Mr. Furlong has had associated with him this year Mr. Harold H. Brown of the Stuyvesant High School, New York City, and in this way the Department has been able to give a greater amount of personal attention to its increased number of students. There is a constant inquiry for instruction in Domestic Science. The University has a fine outfit for this work in charge of two able instructors. I hope we may be able to include the subject next year. Four courses were given in the College of Civil Engineering. For these there seems likely to be a steady demand.

DEPARTMENT CONFERENCES.

These informal gatherings, started three years ago by one group of instructors and students, have been very generally held this summer on Tuesday evenings. They supplement in a fine way the formal work of the classroom by furnishing opportunity to ask questions, to present and discuss problems of every day experience, with plenty of time for their full consideration. They have assumed various forms as seemed best in the judgment of the teaching staff. In some, papers by members of the class have been presented and discussed. In others, a round table plan has been followed with an assigned subject for the evening under the charge of a designated leader. A third plan has been to meet for an address by some scholar. All have been very successful. Any plan by which a student is made to feel that his particular problem is of importance, that it can and will receive adequate attention and discussion is most valuable.

EXCURSIONS AND FIELD WORK.

The situation of the University offers peculiar advantages for out-of-door work. There is a large amount of illustrative material, for Geography, Botany, and Zoology, in the immediate vicinity. Such a fortunate combination of lake and stream, of mountain and marsh is rare. Full advantage has been taken this year of these opportunities. At the same time most successful excursions have been made to remoter points. These excursions have become distinct events in the life of the Summer Session, and the general desire on the part of students to participate in them has made the numbers attending so large as to cause embarrassment. Notable this year was the steam boat excursion of the Botanists to the north end of Cayuga Lake, and again to the peat bogs and ponds of the McLean district. Remarkably successful too were the all-day excursion of the students of Geography to Watkins, and the two-day excursion of the same to Niagara Falls. The watchful care and faithfulness of Professors Rowlee and Condra prevented any accident and brought the trips to a most successful close.

GENERAL LECTURES, MUSICAL RECITALS

We have been able this year to enjoy an unusually large number of addresses in the evening. In addition to lectures by members of the summer staff, Professors Bailey, Catterall, Dennis, Hull, Molitor, and Needham kindly gave a lecture each on subjects connected with their own special studies. In connection with the lecture of Professor Dennis an organized exhibition of Morse Hall and the equipment of various departments there was given to a large and interested company. Lectures were given also, in generous response to the request of the Director, by Dr. Frank Rollins, Assistant Commissioner of Education for the State of New York; by Mr. J. S. Whipple, Commissioner of Forest, Fish, and Game for the State of New York; by Professor O. H. Richardson, of the University of Washington; and by President Andrew D. White. At the request of the Equal Franchise Society of New York, their representative, Mrs. Annis Ford Eastman of Elmira, made a most acceptable address. Two lectures were given by Mr. Frank H. Chapman, of the Museum of Natural History, New York City, and one by Mr. Louis A. Fuertes of Ithaca, N. Y. on the study of birds. Two delightful musical recitals were given by Mr. and Mrs. Eric Dudley, and Miss Gertrude Nye and Mr. William G. Egbert. All of these evenings were not merely entertaining but highly instructive. Particularly impressive was the address of Dr. White, the concluding sentences of which were in the nature of a personal address to the members of the Summer Session. By request these were printed and a copy placed in the hands of each student. It was a matter of pride no less than pleasure to give wider circulation to this expression of the finest Cornell spirit.

It has been a distinct advantage to have Sage College open again and the opportunity for mutual acquaintance, and for comfortable living near the University buildings, has been thoroughly appreciated. Under the skillful direction of Miss Emily Hickman everything has gone smoothly. Miss Hickman also organized from members of the Summer Session a committee which took charge of the informal dances held on Saturday evenings. They added a pleasant feature to the social life of the summer. Religious meetings were held Sunday evenings on the slope west of the Library. These were well attended and very generally appreciated. Dr. C. M. Tyler and others had the kindness to make short addresses on these occasions. I believe the session of 1909 marks a steady advance in one of the useful educational activities of the University.

Respectfully submitted,
George P. Bristol,
Director of the Summer Session.

APPENDIX XIII

REPORT OF THE WARDEN OF SAGE COLLEGE.

To the President of the University:

Sir:—I have the honor to submit my report as Warden of Sage College for the year 1908–9.

The number of women students registered at the Warden's office for the first term was 371, for the second term 360. The following table indicates the distribution of these women by place of residence:

		First Term	Second Term
University dormitories	Sage College	171	167
	Sage Cottage	39	43
	Total	210	210
Special lodging houses	Alumnae House	28	26
	Mrs. Kerr's	14	13
	Total	42	39
At work in private families		15	16
At home		61	58
Scattered		43	37
Total outside dormitories		161	150

Those described as "scattered" boarded either with friends or relatives in town or, in small groups of two, three, or four, had rooms together in quiet neighborhoods. Several women of maturer years lived in Cascadilla Building; otherwise no women students roomed there except such as were accompanied by their mothers or other responsible persons. From the beginning care was taken to make sure that all these women were living under desirable conditions and in the course of the year each one was called upon by the Warden or her assistant. In one instance four students who were found to be without adequate chaperonage were required to move up to Sage Cottage.

The health of the women has in the main been extremely good. Miss Mildred Reed of the senior class died at her home during the Easter holidays under the anaesthetic for an operation. Two other women underwent successful operations for appendicitis in the University Infirmary. There has been no other case of illness acute enough to deserve report and for weeks out of the year the women's room at the Infirmary has stood empty.

Doctor Ebba Almgren, Cornell '07, now practicing in New York City, has filled the position of Medical Examiner ably and acceptably, carrying on and developing the system inaugurated by Doctor Barringer. She has made five visits to Ithaca during the year, holding the usual examinations and office hours and giving four talks on personal hygiene to the freshman class. On the occasion of her second visit in November, women entering for the short course in Agriculture for the first time received physical examination and medical advice as new students in all other courses do.

Miss Canfield, Director of the Physical Training Department, reports that 158 women have taken work of one kind or another in the gymnasium. Eighteen sophomores and freshmen have been excused for part or all of the year because of heavy outside work which they were performing in order to meet their College expenses; thirty-two more because of physical delicacy have been placed at different times on special schedules of walking or resting periods or have been given exercises particularly devised for their individual needs. Miss Elsie Sameth of the senior class was early in the fall appointed Assistant to the director, and once a week from the first of November until June has held classes in folk dancing to which students of the necessary physical ability and dexterity in simple dancing have been admitted. The innovation has been popular as a pleasant variation upon ordinary gymnastic drill.

The basketball season began as always in November and lasted through March. Fifty-four women in all took part in the playing during the season. Mr. Gilbert, University instructor in athletics and basketball coach to the women last year, acted as coach for the second time. With his approval the preliminary class games were played earlier than usual, near the first of March, while the final tournament took place about the usual date, at the end of the month. By this change the period of excitement for the teams was rendered less concentrated and intense than it has been in years when all the games were played off within three or four days, and the danger of excessive fatigue, it is thought, was distinctly lessened. The Rowing Club this spring has counted thirty-two members. They were coached first on the rowing machines and later on Lake Beebe by the rowing manager and Miss Canfield. The inter-class race between sophomores and freshmen was rowed at the end of the season and begins already to be something of a social event. The Tennis Club has used a court on the new athletic field as well as the two on the north side of Sage and has held its customary tournament with success at the close of the year. During the month of May, Miss Canfield has occasionally used the athletic field as the meeting place for regular gymnasium classes in order to have the benefit of the out-door air, and has substituted simple games for the ordinary exercises.

The Women's Self Government Association has continued to develop along lines both old and new. In the fall the new constitution described in the Warden's report of last year (p. lxxxviii) was formally adopted and put into force. Self government committees were organized in each house where women to the number of ten or more were living. Representatives from these house committees and also from the more scattered women meet together monthly in a general executive committee to pass upon all questions of more than local interest and to keep the several branches of the organization informed about one another. These general committee meetings proved from the outset surprisingly fruitful of discussion and suggestion and lasted often until late into the evening. Among the measures proposed and eventually carried through upon the Committee's recommendation were the creation of a special committee to have oversight and care of the "scattered" women who live singly or in little groups up and down the town, the installation of a "point system," by which a limit is set to the number of student offices a woman may hold at any one time or in any one year, and the organization of a small "Census bureau" to keep record of the offices held by every student during the University course. The house committee at Sage College was considerably enlarged in order to make it more genuinely representative of the many different circles in the College constituency.

Early in November the president and a second delegate from the Association attended the Conference of the Intercollegiate Association of Student Government Organizations at Mount Holyoke College. The secretary of the conference this year was also from Cornell and in addition the chairman of the student committee of the Alumnae House was sent by friends of the house. Thus four Cornell women enjoyed the stimulus and profit to be obtained from this gathering of the leading women of the principal colleges for women in the East. The invitation to hold the conference next November at Cornell was formally delivered and accepted. The president of the conference for next year will accordingly be a Cornell woman and an unusual opportunity to promote for the University a reputation for collegiate hospitality and courtesy will be in the hands of the officers of the Self Government Association and the women at large.

The social life of the women of the University has gone its usual course. The annual reception to the Faculty and Trustees was held in December. In April the Warden entertained the dean of Wells College and the house mistress of William Smith College for a day and a night, inviting the members of the senior class to meet them in the afternoon. At the same time the members of the Sage College house committee entertained the presidents of the Student Government Associations of those colleges and of the women of Syracuse University. The innumerable other functions of the year, teas, dinner parties, dances, excursions, stunts, and dramatics have duly taken place. A movement for raising the standard of the women's dramatics has been started and it is thought, will produce results another year. The Warden has been at home to students regularly on Thursday evenings.

Several advocates of special causes have spoken in the Sage reception rooms, Miss Paxson on the student volunteer movement, Miss Holmquist on Christian Association work, Miss Smith on the Summer Bible School, Miss Helen Phelps Stokes and Miss Sanford on socialism, and Miss Caroline Lexow on equal suffrage. As a consequence of Miss Lexow's visit a branch of the National Equal Suffrage League was started among the students with a membership of about fifteen.

In closing my report I should like to make mention of the intelligent support and excellent service rendered throughout the year by Miss Hickman, Assistant to the Warden.

Respectfully submitted,
LOUISE ROPES LOOMIS,
Warden of Sage College.

APPENDIX XIV

REPORT OF THE REGISTRAR

To the President of the University:

Sir:—I have the honor to submit herewith my thirteenth annual report as Registrar of the University. The report covers the academic year 1908–1909, including the Summer Session of 1909.

THE YEAR

	Days in Session	Sun-days	Holi-days	Vaca-tion	Total
First term, Sept. 29–Jan. 27	89	15	3	..	107
First term, vacation, Jan. 28, 29	..	..	..	2	2
Christmas vacation, Dec. 23–Jan. 5 ...	..	..	..	14	14
Second term, Jan. 30–June 17	109	18	2	..	129
Easter vacation, April 3–April 12	..	..	..	10	10
Summer vacation, June 18–July 4	..	..	..	17	17
Summer Session, July 5–Aug 13	35	5	..	..	40
Summer vacation, Aug. 14–Sept. 27 ..	..	..	..	45	45

In addition to the 233 days in session given above, the University Library was open every day in the year except holidays and there was no time during the year when college activities entirely ceased. The shops and some of the laboratories were also open during nearly all the vacation period.

STUDENTS

The table given on page CXVII, which shows the attendance for 1908–1909, gives the number of students who have received instruction this year, including those in the 1909 Summer Session and in the Winter Courses in Agriculture, but excluding duplicates, as 4,859, an increase over last year's attendance of 394.

The accompanying table shows the attendance in each course since the opening of the University in 1868. Previous to 1897 optional and special students were separately tabulated but now these are distributed as far as possible among the groups to which they belong.

in the course of the year each one was called upon by the Warden or her assistant. In one instance four students who were found to be without adequate chaperonage were required to move up to Sage Cottage.

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NG OF THE UNIVERSITY IN 1868.

	95–96	96–97	97–98	98–99	99–00	00–01	01–02	02–03	03–04	04–05	05–06	06–07	07–08	08–09
	145	161	166	190	174	205	189	201	197	211	232	239	249	310
	77	75	....	....	....	....	....	....	....	....	....	....	....	....
	....	....	624	631	680	755	831	795	734	684	705	748	820	902
	166	200	....	....	....	....	....	....	....	....	....	....	....	....
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	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	7	8	....	....	....	....	....	....	....	....	....	....	....	....
	51	68	84	85	88	99	92	114	142	189	230	278	348	415
	209	245	467	501	571	661	792	891	964	1060	1096	1081	1127	1162
	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	295	243	....	....	....	....	....	....	....	....	....	....	....	....
	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	122	152	179	185	203	183	214	252	326	385	425	466	511	569
	67	51	53	48	43	52	50	53	65	68	81	82	100	133
	207	239	246	164	178	182	198	224	240	228	222	211	206	225
	....	11	16	23	30	42	51	64	86	110	88	86	82	94
	....	....	....	7	20	23	44	70	....	....	....	....	....	....
	....	....	....	278	333	347	433	396	371	406	394	348	320	221
	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	1702	1808	1835	2101	2299	2521	2845	3022	3091	3318	3461	3523	3734	3985
	237	192	203	424	445	424	548	470	718	619	642	755	841	889
	18	18	20	29	26	30	35	33	26	....	....	....	....	....
	....	....	....	....	19	18	9	....	....	....	....	....	....	....
	....	....	....	....	15	29	12	....	....	....	....	....	....	....
	83	60	93	89	83	94	96	121	134	199	248	244	270	364
	....	....	....	....	....	11	8	3	1	....	....	....	....	....

g. The classification of "Optionals" was always vague, and

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Dept. & Coll.	Graduates			Arts & Sciences			Law			Medicine			Agriculture			Veterinary		
Degrees	A.M., Ph.D., M.M.E.			A.B.			LL.B.			M.D.			B. S. in Agr.			D. V. M.		
Classification	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Graduates	259	51	310	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Freshmen	..	..	..	266	79	345	..	..	..	13	1	14	127	12	139	..	..	..
Sophomores	..	..	..	134	73	207	..	..	..	56	8	64	50	2	52	..	..	..
Juniors	..	..	..	82	64	146	..	..	..	62	8	70	35	2	37	..	..	..
Seniors	..	..	..	101	85	186	..	..	..	52	2	54	38	3	41	..	..	..
1st Year Class	..	..	..	..	..	..	99	..	99	..	..	..	..	..	..	40	..	40
2nd " "	..	..	..	..	..	..	72	1	73	..	..	..	..	..	..	25	1	26
3rd " "	..	..	..	..	..	..	46	..	46	..	..	..	..	..	..	25	..	25
Specials	..	..	..	10	8	18	7	..	7	17	2	19	138	8	146	3	..	3
Totals	259	51	310	593	309	902	224	1	225	200	21	221	388	27	415	93	1	94
Duplicates	28	12	40	..	..	..	..	..	..	5	1	6	..	..	..	..	..	..
Net Totals	231	39	270	593	309	902	224	1	225	195	20	215	388	27	415	93	1	94
Short Winter Agr.	..	..	..	..	..	..	..	..	..	..	..	..	332	32	364	..	..	..
Summer	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	231	39	270	593	309	902	224	1	225	195	20	215	720	59	779	93	1	94
Duplicates	..	..	..	..	..	..	..	..	..	..	..	..	4	..	4	..	..	..
Net Totals	231	39	270	593	309	902	224	1	225	195	20	215	716	59	775	93	1	94

Dept. & Coll.	Architecture			Civil Eng.			Mech. Eng.			Summer Session			Total		
Degrees	B. Arch			C. E.			M. E.								
Classification	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Graduates	..	..	..	..	..	..	..	..	..	..	..	..	259	51	310
Freshmen	67	1	68	207	..	207	476	..	476	..	..	..	1156	93	1249
Sophomores	19	1	20	138	..	138	252	..	252	..	..	..	649	84	733
Juniors	15	1	16	110	..	110	203	..	203	..	..	..	507	75	582
Seniors	14	..	14	111	..	111	206	..	206	..	..	..	522	90	612
1st Year Class	..	..	..	..	..	..	..	..	..	..	..	..	139	..	139
2nd Year Class	..	..	..	..	..	..	..	..	..	..	..	..	97	2	99
3rd Year Class	..	..	..	..	..	..	..	..	.	..	..	..	71	..	71
Specials	14	1	15	3	..	3	25	..	25	..	..	..	217	19	236
Totals	129	4	133	569	..	569	1162	..	1162	..	..	..	3617	414	4031
Duplicates	..	..	..	..	..	..	..	..	..	..	..	..	33	13	46
Net Totals	129	4	133	569	..	569	1162	..	1162	..	..	..	3584	401	3985
Short Winter Agr.	..	..	..	..	..	..	..	..	..	..	..	..	332	32	364
Summer	..	..	..	..	..	..	..	..	..	603	286	889	603	286	889
Totals	129	4	133	569	..	569	1162	..	1162	603	286	889	4519	719	5238
Duplicates	..	..	..	..	..	..	..	..	..	352	23	375	356	23	379
Net Totals	129	4	133	569	..	569	1162	..	1162	251	263	514	4163	696	4859

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Year	Arts	Phil.	Let.	Sci.	Agri.	Arch.	Civil Eng.	Mech. Eng.	Forestry	Law*	Vet.	Med.	No. of Cases
1886–87	2	8	1	4	1	4	6	18	..	..	..	..	50
1887–88	6	4	1	1	..	..	11	10	..	..	..	..	37
1888–89	5	..	6	6	1	2	12	21	..	..	..	..	58
1889–90	4	5	6	3	2	1	2	25	..	..	..	..	50
1890–91	8	8	2	4	1	..	14	28	..	..	..	..	65
1891–92	7	9	2	5	2	2	10	52	..	..	..	..	89
1892–93	6	6	1	8	..	6	11	44	..	..	..	..	87
1893–94	5	6	5	8	..	6	6	56	..	..	..	..	94
1894–95	4	2	3	3	2	3	6	44	..	..	..	..	71
1895–96	5	11	4	7	3	3	9	33	..	..	..	..	85
1896–97	10	4	2	4	3	3	11	42	..	12	5	..	100
1897–98	11	6	..	7	9	2	15	41	..	15	1	..	108
1898–99	27	6	1	7	5	3	16	56	2	6	3	2	134
1899–00	28	..	..	1	5	3	25	64	1	7	4	..	138
1900–01	37	..	..	..	4	6	6	64	3	10	2	2	134
1901–02	38	..	..	..	9	2	29	92	5	7	..	2	184
1902–03	33	..	..	..	8	2	24	105	9	12	1	..	194
1903–04	31	..	..	..	9	5	39	112	..	9	1	1	207
1904–05	29	..	..	..	9	5	44	101	..	3	..	..	191
1905–06	39	..	..	..	14	8	36	89	..	1	..	..	187
1906–07	40	..	..	..	19	5	55	86	..	15	..	..	220
1907–08	43	..	..	..	22	10	60	79	..	11	..	..	225
1908–09	37	..	..	..	21	10	53	71	..	5	1	5	203

Of the 203 admitted in 1908–1909, 98 registered as freshmen, 53 as sophomores, 34 as juniors, and 18 as seniors.

During the last twenty-three years there have been admitted from 435 other institutions of collegiate rank 3,000 students. The distribution of these students can be seen by reference to the table page xciii of the Report for the year 1907–1908.

ADMISSION ON SCHOOL CERTIFICATE, REGENTS' CREDENTIALS, AND EXAMINATIONS

The Registrar has charge of the credentials of those entering by school certificate, by Regents' credentials, and by examinations, including the examinations conducted by the College Entrance Examination Board.

During the last sixteen years the number of applicants admitted by school certificate, by Regents' credentials, and by examinations, has been as follows:

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*No data prior to 1896–1897.

	'93-4	'94-5	'95-6	'96-7	'97-8	'98-9	'99-00	'00-1	'01-2	'02-3	'03-4	'04-5	'05-6	'06-7	'07-8	'08-9
Certificate	209	156	164	102	193	199	275	296	357	308	315	317	380	324	465	578
Regents'	125	118	119	131	140	154	164	198	212	219	220	238	233	185	244	287
Exam.	55	23	28	28	25	22	24	26	39	19	18	27	16	18	41	12
Coll. Ent. Exam. Bd.	..	..	..	..	..	..	..	..	9	11	20	27	29	37	33	23
N.Y.C. Ex.	..	..	..	..	..	..	..	..	..	..	..	..	..	20	9	5
Total	389	297	311	361	358	375	463	520	617	557	573	609	658	584	792	905

The Regents' credentials mentioned above do not include medical and veterinary student certificates.

The discrepancy in numbers in the freshman class compared with those given in the Register, is due to students being there listed as freshmen because of some shortage when otherwise they belong to a higher class.

The small number credited to entrance by examination would become much larger if those taking a few examinations to make up a shortage in another group were included. It is not unusual to have a student enter partially by certificate, by examination, and by College Board examination. The combining of school with Regents' credentials, however, is not a common method of admission and is employed only in very exceptional cases.

It should be noted that the number entering entirely by our examinations is small. The preparatory schools are now better acquainted with our entrance requirements. Certain Regents' credentials admit to the Colleges of Arts and Sciences, of Agriculture, and of Law, and under certain conditions relieve all students from taking an entrance examination in English. Regents' pass cards for single subjects are accepted if the grade be at least 60%, the University Faculty having agreed to accept the Regents' pass of 60% for the years 1909 to 1913 inclusive. The failure of several students to pass the entrance examination before completing the high school course has influenced others to complete their course in school and enter the University by certificate.

PETITIONS

The usual form of petition has been continued by the several Faculties. Where the petition relates to routine matters and a mere change of registration of studies, a much simpler method has been adopted for changes in registration, and the strict enforcement of registration rules has made a marked improvement in the students' work. The Faculties of Arts and Sciences, Agriculture, Civil En-

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	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	Tota
Bachelors	29	31	39	42	50	53	129	189	181	212	181	147	154	173	188	213
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5
Bachelors	25	43	49	44	26	40	....	....	....	....	....	....	....	....	....	48
Bachelors	20	12	16	3	5	....	....	....	....	....	....	....	....	....	....	26
Bachelors	23	23	34	57	59	62	1	....	....	....	....	....	....	....	....	87
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Bachelors	4	5	....	....	....	....	....	....	....	....	....	....	25	39	42	16
Bachelors	18	19	....	....	....	....	....	....	....	....	....	....	....	....	....	11
Bachelors	....	....	8	9	8	10	6	8	6	4	14	7	15	8	12	15
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
Bachelors	....	....	8	9	12	8	14	8	8	14	19	27	....	....	....	12
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Doctors of	....	....	3	4	6	7	9	10	13	16	25	27	32	18	25	19
Graduate	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Pharmace	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	16
Civil Engi	30	23	24	15	30	35	48	31	38	37	57	52	90	69	104	88
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5
Mechanic	87	110	125	87	89	100	110	110	157	140	187	225	235	244	206	265
Bachelors	76	61	81	105	25	52	44	32	45	49	52	61	46	40	48	110
Doctors of	....	....	....	....	66	59	26	53	60	55	74	59	72	58	54	63
Forest En	....	....	....	....	....	1	5	2	2	5	....	1	1	..	....	1
Total	312	327	387	375	376	427	392	443	510	532	609	606	670	649	679	1013
*Ph. B. in C	1	3	2	....	2	....	....	....	....	....	....	....	....	....	....	....
†B.S. in C	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
in C	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
in N	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
in S	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
in (P	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
in M	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
in Ci	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
in El	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
‡M.E. in El	51	69	69	46	33	43	29	36	51	....	....	....	....	....	....	....
in M	....	....	....	....	....	....	....	....	19	....	....	....	....	....	....	....
in R	....	....	....	....	....	....	....	....	10	....	....	....	....	....	....	....

	'95	'96	'97	'98	'99	'00	'01	'02	'03	04	'05	'06	'07	'08	'09	Tot
Architect	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Civil Engin	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Mechanical	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Masters of	2	1	10	10	16	14	20	19	22	12	23	13	10	22	26	2
Masters of	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	
Masters of	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Masters of	5	8	....	1	....	....	....	....	....	....	....	....	....	....	....	
Masters of	1	3	5	5	3	....	8	7	3	2	10	11	9	12	12	
Masters of	1	1	1	....	....	....	....	....	1	1	1	1	1	3	1	
Masters of	4	....	1	3	2	1	3	....	3	....	3	1	1	2	2	
Masters of	8	15	6	2	7	4	10	4	7	6	9	4	4	5	7	1
Masters of	8	4	7	5	....	....	....	....	....	....	....	....	....	....	....	
Doctor of V	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Doctors of	6	3	3	....	....	....	1	....	....	....	....	....	....	....	....	
Doctors of	13	14	11	23	7	19	20	23	20	13	21	19	19	22	34	3
Doctors of	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Total	52	52	44	49	35	38	62	53	56	34	67	49	44	66	82	11
Grand	364	379	431	424	411	465	454	496	566	566	676	655	714	715	761	112

	'93-4	'94-5	'95 6	'96-7	'97-8	'98-9	'99-00	'00-1	'01-2	'02-3	'03-4	'04-5	'05-6	'06-7	'07-8	'08-9
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Coll. Ent. Exam. Bd.	..	..	..	..	..	..	..	..	9	11	20	27	29	37	33	23
N.Y.C. Ex.	..	..	..	..	..	..	..	..	..	..	..	..	..	20	9	5
Total	389	297	311	361	358	375	463	520	617	557	573	609	658	584	792	905

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	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	Total
Bachelors	29	31	39	42	50	53	129	189	181	212	181	147	154	173	188	2133
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	52
Bachelors	25	43	49	44	26	40	....	....	....	....	....	....	....	....	....	484
Bachelors	20	12	16	3	5	....	....	....	....	....	....	....	....	....	....	264
Bachelors	23	23	34	57	59	62	1	....	....	....	....	....	....	....	....	871
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4
Bachelors	4	5	....	....	....	....	....	....	....	....	....	....	25	39	42	162
Bachelors	18	19	....	....	....	....	....	....	....	....	....	....	....	....	....	118
Bachelors	....	....	8	9	8	10	6	8	6	4	14	7	15	8	12	154
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	30
Bachelors	....	....	8	9	12	8	14	8	8	14	19	27	....	....	....	127
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4
Doctors of	....	....	3	4	6	7	9	10	13	16	25	27	32	18	25	195
Graduate	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Pharmace	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	161
Civil Engi	30	23	24	15	30	35	48	31	38	37	57	52	90	69	104	889
Bachelors	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	57
Mechanica	87	110	125	87	89	100	110	110	157	140	187	225	235	244	206	2658
Bachelors	76	61	81	105	25	52	44	32	45	49	52	61	46	40	48	1102
Doctors of	....	....	....	....	66	59	26	53	60	55	74	59	72	58	54	636
Forest En	....	....	....	....	....	1	5	2	2	5	....	1	1	..	....	17
Total	312	327	387	375	376	427	392	443	510	532	609	606	670	649	679	10130
*Ph.B. in	1	3	2	....	2	....	....	....	....	....	....	....	....	....	....	.....
†B.S. in C	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
in C	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
in N	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
in S	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
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in C	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
in E	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
‡M.E. in E	51	69	69	46	33	43	29	36	51	....	....	....	....	....	....	.....
in M	....	....	....	....	....	....	....	....	19	....	....	....	....	....	....	.....
in R	....	....	....	....	....	....	....	....	10	....	....	....	....	....	....	.....

	'95	'96	'97	'98	'99	'00	'01	'02	'03	04	'05	'06	'07	'08	'09	Tota
Architect	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Civil Engin	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	20
Mechanical	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Masters of	2	1	10	10	16	14	20	19	22	12	23	13	10	22	26	275
Masters of	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	10
Masters of	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9
Masters of	5	8	....	1	....	....	....	....	....	....	....	....	....	....	....	84
Masters of	1	3	5	5	3	....	8	7	3	2	10	11	9	12	12	96
Masters of	1	1	1	....	....	....	....	....	1	1	1	1	1	3	1	14
Masters of	4	....	1	3	2	1	3	....	3	....	3	1	1	2	2	41
Masters of	8	15	6	2	7	4	10	4	7	6	9	4	4	5	7	147
Masters of	8	4	7	5	....	....	....	....	....	....	....	....	....	....	....	60
Doctor of	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Doctors of	6	3	3	....	....	....	1	....	....	....	....	....	....	....	....	20
Doctors of	13	14	11	23	7	19	20	23	20	13	21	19	19	22	34	325
Doctors of	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
Total	52	52	44	49	35	38	62	53	56	34	67	49	44	66	82	1106
Grand	364	379	431	424	411	465	454	496	566	566	676	655	714	715	761	11236

gineering, Medicine, and Veterinary Medicine have filed the petitions in the offices of these Colleges and have notified the Registrar of the action taken; while the Law and Mechanical Engineering Faculties have returned the petitions to this office and the office has notified the students by mail.

The registration of old students takes place after the matriculation of new students. This allows new students a day to arrange their work before instruction begins. Old students are not required to be at the University until the day preceding the one on which instruction begins. The system of registering new students in September in groups according as their names appear in the alphabet, and of sending out by mail permits for registration has solved the overcrowding of registration and gives each student abundant time to get started aright.

The inserted table gives the number admitted to graduation at the 1909 Commencement as well as those of former years. 11,236 degrees have been conferred, but there are some duplicates between the first and second degrees. One degree (M.D.) was conferred in 1899, but in 1907 was revoked because the candidate declined to accept it. One degree (D.V.M.) was conferred in June, 1905, but owing to a technicality was withdrawn and conferred again June, 1906, while another degree (D.V.M.) was conferred in 1907 but dated as June, 1906. Care has been taken to discriminate between closely allied degrees, but such have been grouped so as to show at a glance the number in each department.

Respectfully submitted,
DAVID F. HOY,
Registrar.

APPENDIX XV

REPORT OF THE LIBRARIAN

To the President of the University:

Sir:—I have the honor to submit herewith my annual report on the University Library for the year ending June 30th, 1909.

The following table shows the additions made to the various collections composing the University Library and the total present extent of the Library:

	Additions 1908-09		Present Extent	
	Volumes	Pamph	Volumes	Pamph.
General Library	11,452	2,000	318,301	55,000
Law Library	1,103		39,838	
Flower Veterinary Library	291		3,406	
Barnes Reference Library	84		1,573	
Forestry Library	13		1,120	
Goldwin Smith Hall Library	89		1,170	
Stimson Hall Medical Library	146		923	
Agricultural College Library	2,235		2,720	
Totals	15,413	2,000	369,051	55,000

The term "general library" includes the President White Historical Library, the Fiske collections, and the seminary and department collections not separately enumerated. Of the accessions to the general library (numbering 11,452 volumes) 4,613 were gifts. Of the accessions to the other collections named in the table, the gifts number 66 volumes for the Law Library, 21 volumes for the Flower library, 19 volumes for the Barnes library, 52 volumes for the Goldwin Smith Hall library, 118 volumes for the Stimson Hall library, and 35 volumes for the library of the Agricultural College which is now being formed by purchases from the College funds.

The gifts of the year include an interesting collection of manuscript notebooks and scrapbooks, containing a great mass of material relating to the early history of Tompkins county, brought together by the late Charles F. Mulks and bequeathed by him to the library. From Ex-President White the library received 212 volumes. Theodore Stanton of the class of '76 gave to the library this year 798 volumes, nearly completing his gift of a full set of the Tauchnitz collection of British and American authors, comprising over 4,000 volumes. Professor T. F. Crane, upon retiring from active service in the University in June, presented to the library his valuable collection of books relating to Folklore, numbering nearly three hundred volumes and forming an important addition to our collection of Folklore which has been built up largely under his direction. Mr. J. Pierpont Morgan gave to the library the privately printed and sumptuous catalogue of his great collection of illuminated manuscripts and early printed books, in four volumes, and the finely illustrated catalogue of his rich collection of miniatures, in four volumes; Mr. Henry Walters gave the elaborate catalogue of his fine collection of early printed books; three catalogues of high intrinsic value and importance. To yourself and to Professors Burr, Gage, Hart, Hewett, Northup, Sampson, Willcox, and Messrs. E. J. Bailey and B. S. Monroe, the library is indebted for many additions. From Mr. Henry Holt 35 volumes were received for the collection in Goldwin Smith Hall. Col. T. A. Dodge presented a set of his "Great Captains" in 12 volumes, and from the American Laryngological Association, the American Laryngological and Otological Society, and the American Swedenborg Publishing Society the library received sets of their respective publications. Mr. A. N. Hungerford of Berkeley gave an interesting manuscript map of the "Military Lands in the Western part of the State of New York" drawn by Simeon DeWitt in the closing years of the 18th century. From the National Government and from various state and municipal governments the usual supply of federal, state, and municipal documents has been received. From the English, Canadian, and Australian Patent Offices we continue to receive their valuable publications. These and the other gifts of the year have all been promptly acknowledged.

Of the purchases made during the year the most important was the collection of works on economic entomology, numbering 787 volumes, made by the late Professor M. V. Slingerland and purchased for the entomological division of the library of the State Agricultural College. Perhaps the most interesting single work purchased is a folio volume containing the unpublished manuscript of parts II, III, and IV, of Paolo Beni's Anticrusca, bearing the approbation of the inquisitor, dated 7 Oct., 1624. Part I of the Anticrusca was printed in 1612 at Beni's private press, and a copy of it is in the Petrarch collection. Possibly owing to Beni's death in 1625, the continuation was never printed and now, after many vicissitudes, the manuscript has found its way to our shelves giving to this library the honor of possessing the only complete copy of the work. Among other important purchases may be noted facsimiles of the Codex Vossianus of Lucretius, and of the Codex Toletanus of Isidore of Seville; Mazzoni's Discorso in difesa della Commedia del diuino poeta Dante, 1573; Museum Worsleyanum; Björnbo and Petersen's Anecdota Cartographica Septentrionalia; Nordenskiold's Periplus; Weisse's Positiones stellarum fixarum; Wimmer's Danske Runemindesmærker; Valor Ecclesiasticus temp. Henr. VIII; Collection of State Tracts of the reign of William III; Nichol's Progresses and Public Processions of Queen Elizabeth and James I.; Langbaine's Account of the English Dramatic Poets, 1691; La Décade philosophique, littéraire et politique, 1794–1807, 54 volumes; Horne's Alessandro Filipepi; Weale's Hubert and John Van Eyck; the full score of Elgar's King Olaf; Vesalius's De humani corporis fabrica, 1568; Day's Fishes of Great Britain and Ireland, and Fishes of India; Dobson's Catalogue of the Chiroptera; Chodat's Principes de Botanique; Roth's Europäischen Laubmoose; Eichwald's Lethæa Rossica; Littlehales's Altitude, Azimuth, etc.; the British Association's Catalogue of Stars; complete sets of the Catholic World, London Quarterly Review, National Review, New York Daily Graphic, Deutsche Pionier, Quellen und Forschungen aus Italienischen Archiven, Revue de Philologie Classique, Journal de Botanique, Societas Entomologica (Zurich), Review of Neurology and Psychiatry. The following important sets have been completed: Bayreuther Blätter, Bibliotheca Norvegica, British and Foreign State Papers, Bibliotheca Zoologica, Biochemische Zeitschrift, Die Neueren Sprachen, Statistische Monatschrift. Among the purchases made for the library of the College of Agriculture are the following important sets: Annales Mycologici, Arbeiten der deutschen Landwirthschafts Gesellschaft, Flore de Buitenzorg, Icones Bogorienses, Jahresbericht uber die Fortschritte der Agriculturchemie, Mededeelingen uit's Lands Plantentium, Teysmannia, Tijdschrift voor Nijverheid en Nederlandsch Indie.

Dr. A. C. White, assistant librarian in charge of accessions and classification, reports that the work of this department has been carried on regularly and that all ordinary current accessions have been classified and assigned to their places.

The statistics supplied by Miss Dame, the assistant librarian in charge of the catalogue, show that during the year the number of volumes and pamphlets catalogued for the general card catalogue was 13,619. For these 14,529 cards were written besides the printed cards obtained from the Library of Congress. A complete alphabetical card catalogue of the large collection of the pamphlets on the French Revolution in the White Historical Library has been made by combining the entries in the printed catalogue of 1894 with those of later accessions, and a separate case has been provided for this special catalogue in the White Historical Library.

Professor Burr reports that for the President White Historical Library the year has been one of uneventful growth. The continued generosity of its founder has supplemented as hitherto the standing resources of the library, and it has been possible to build up the special collections as well as to supply the immediate needs of its uses and to maintain after some sort its general symmetry. It is especially the French Revolution, the history of Prussia, the Protestant Reformation, the period of Charles the Great, as to which our resources have been materially increased by the purchases of the past year. In the field first named and in that of church history some important sets of periodicals have been added.

Mr. Hermannsson, the curator of the Icelandic collection, reports that the regular accessions have been regularly cared for, that much binding has been done, and much time given to the preparation of "The Northmen in America (982—c. 1500), a contribution to the bibliography of the subject," which was published in June, forming volume II of "Islandica," the annual publication relating to the collection for which provision was made by the will of Mr. Fiske.

Miss Fowler, the curator of the Petrarch and Dante collections, reports that outside of the care of the acquisitions to the collections her time has been given to gathering material for the bibliography of Petrarch, in analysis of general literature and periodicals and notes on editions, and that continuous efforts have been made to secure fugitive pieces relating to Petrarch and the Petrarch centenary of 1904.

Mr. W. H. Austen, assistant librarian in charge of the reference and loan department of the general library, reports that the Library has been open 308 days during the year, being closed only on Sundays and on five general holidays. The number of registered users here reported includes only those who have drawn books for home use from the general library.

University officers	401
Students of all classes	609
Special borrowers	32

The number of reserved books in the reading rooms and seminary rooms in the Library building is 12,886, the number in locked presses is 1,385, and the number reserved at the delivery desk for special use during the year was 1,508. The number of volumes from the general library at present deposited in various laboratory and department collections in other University buildings is now 17,335. The number of volumes reported as missing from these collections during the year 1908–1909 is as follows:

From the reading room shelves	70
From seminary rooms	1
From departments and laboratories	88

It is perhaps worth noting that over thirty volumes of works relating to nature-study disappeared from the open shelves in the reading room during the summer session of 1908. During the year we have borrowed from other libraries 141 volumes and have lent 155 volumes to other libraries.

The following table gives the recorded use of books during the past two years. The use made of the Library, however, is shown only in part by this table as no record is kept of the large and constant use made of the books on open shelves in the building and in the department collections. This being the first complete year in which the special library in Goldwin Smith Hall has been open a considerable falling off in the number of books used in the general reading room might have been expected, but the figures show only a very slight diminution in the number of books called for in the general reading rooms.

REFERENCE AND DEPARTMENT USE

	1907-08	1908-09
Volumes used in reading rooms	73,072	71,017
Volumes sent to seminary rooms	3,095	3,814
Volumes sent to departments	6,249	6,682

HOME USE

Volumes from general library	20,388	20,311
Volumes from open shelf circulating library	6,627	5,860
Volumes lent to other libraries	194	155
Total recorded use	109,625	107,839

The open shelf circulating collection fully justifies its establishment and is largely used by technical students. The number of students who have registered and drawn books from this collection during the year is 834, and the number of readers who used books in the room without taking them for home use was 3,280. During the year 15 volumes from this collection were reserved for class use in the general reading room and 8 volumes were sent back to the stacks.

. Mr. W. W. Ellis, the curator of the shelves, reports that in addition to the regular inspection of new books before they pass from the catalogue room to the stacks and departments, the usual inventories have been made with the following results: 351 volumes were missing from their proper places in the stacks when the inventories were taken as against 311 last year, and 207 volumes were discovered on the wrong shelves as against 215 last year. Some progress has been made in the task of disposing of the increasing number of unnecessary duplicates by exchanges with libraries and dealers. As a result of efforts made to complete imperfect sets of reports 94 volumes and 47 pamphlets have been obtained as gifts. The growth of the general map collection calls for the addition of another map case at once.

In the first term of the year Mr. Austen gave his regular course of lectures on the use of books, which was followed by a course of instruction in practical work during the second term. In the second term the Librarian gave his regular course of lectures on general bibliography. The annual record of publications by the University and its officers has been prepared by Miss Dame. The list of donors has been prepared by Miss Thornburg.

Respectfully submitted,
Geo. Wm. Harris,
Librarian.

APPENDIX XVI

PUBLICATIONS, 1908–1909

Under the Auspices of the University

The University records. 8 s. no. 5–9 s. no. 4. *2m.* Ithaca, 1908–1909. 5 nos. 8°. *Illus.*

Contents:—viii. 5. The register, 1907–1908.

ix. 1. Sixteenth annual report of President Schurman, 1907–1908.

ix. 2. The register, 1908–1909.

ix. 3. Announcement of the eighteenth summer session, July 5 to Aug. 13, 1909.

ix. 4. The register, 1908–1909.

Abraham Lincoln, an address by F. S. Black, delivered at the celebration of the one hundredth anniversary of the birth of Abraham Lincoln at Cornell University, Feb. 12th, 1909. [Ithaca, 1909.] 8°. pp. 11.

Abstracts of work done in the laboratory of veterinary physiology and pharmacology under the direction of P. A. Fish. No. 6. Ithaca, 1909. 8°. pp. 34. *Plate.*

Circular no. 1, New York State Veterinary College at Cornell University. Ithaca, 1908. 8°. pp. 19.

The Cornell civil engineer and transactions of the Association of Civil Engineers of Cornell University. Vol. xvii. Oct., 1908–June, 1909. Ithaca, 1908–1909. 8°. pp. 361. *Illus.*

The Cornell countryman. Vol. vi. Oct., 1908–June, 1909. *m.* Ithaca, 1908–1909. 8°. pp. 315. *Illus.*

Directory of resident officers of instruction and government and of students, Oct. 23, 1908. [Ithaca, 1908.] sm. 8°. pp. 73.

Same, Feb. 17, 1909. [Ithaca, 1909.] sm. 8°. pp. 71.

Islandica: an annual relating to Iceland and the Fiske Icelandic collection in Cornell University Library, edited by G. W. Harris. Vol. ii. Ithaca, 1909. 8°. pp. (6) + 94.

ii. The Northmen in America; a contribution to the bibliography of the subject, by H. Hermannsson.

The journal of physical chemistry; edited by W. D. Bancroft [and] J. E. Trevor. Vol. xii., no. 7–xiii., no. 6, Oct., 1908–June, 1909. *m*. Ithaca, 1908–1909. 9 nos. 8°. *Illus*.

Issued monthly except in July, August and September.

New York State Veterinary College: a special report to the president of Cornell University, by V. A. Moore. Ithaca, 1908. 8°. pp. 36.

The philosophical review; edited by J. E. Creighton and E. Albee, with the co-operation of J. Seth. Vol. xvii., no. 4–xviii., no. 3, July, 1908–May, 1909. *2m*. New York, 1908–1909. 6 nos. 8°.

Beginning with vol. xviii., No. 2, edited by J. E. Creighton with the co-operation of J. Seth.

The physical review; a journal of experimental and theoretical physics, conducted by E. L. Nichols, E. Merritt and F. Bedell. Vol. xxvii.–xxviii., July, 1908–June, 1909. *m*. New York, 1908–1909. 2v. 8°. *Illus*.

Publications of Cornell University Medical College: studies from the Department of Pathology. Vol. viii. New York, 1908. 8°. *Illus*.

Sixth annual music festival, Cornell University, April 29 and 30 and May 1, 1909, given by the Department of Music. Ithaca, 1909. 8°. pp. 78 + (5). *Portrs*.

Bulletin of the Agricultural Experiment Station. No. 255–267, June, 1908–May, 1909. Ithaca, 1908–1909. 13 nos. 8°. *Illus*.

Circular of the Agricultural Experiment Station. No. 1–7, March, 1908–May, 1909. [Ithaca], 1908–1909. 7 nos. 8°. *Illus*.

Cornell reading-course for farmers. 8 s. no. 39–9 s. no. 45, Feb., 1908–March, 1909. *m*. Ithaca, 1908–1909. 7 nos. 8°. *Illus*.

Cornell reading-course for farmers' wives, M. Van Rensselaer, supervisor. N.S. vol. i., no. 1–4, Nov., 1908–Feb., 1909. Ithaca, 1908–1909. 4 nos. 8°. *Photo-engrs*. and *wdcts*.

Cornell rural school leaflet, A. G. McCloskey, editor. Vol. ii., no. 1–9, Sept., 1908–May, 1909. Ithaca, 1908–1909. 9 nos. 8°. *Illus*.

Home nature-study course; by A. B. Comstock. N. S. vol. v., no. 1–4, Oct., 1908–April, 1909. *2m.* Ithaca, 1908–1909. 4 nos. 8°. *Illus.*

Twenty-first annual report of the Agricultural Experiment Station, 1908. Ithaca, 1908. 8°. pp. xxxvii. + (319). *Illus.*

U. S. Department of Agriculture, N. Y. Section of the Climatological Service of the Weather Bureau. Report. Vol. xx., no. 6–xxi., no. 5, June, 1908–May, 1909. *m.* Ithaca, 1908–1909. 12 nos. 4°. *Maps.*

In co-operation with Cornell University.

—— Weekly weather bulletin. Series of 1908, no. 12–23, 7 July–22 Sept., 1908. [Ithaca], 1908. 12 broadsides. *Maps.*

In co-operation with Cornell University.

By Officers

In the present list are included the titles of books, pamphlets and contributions to periodicals, transactions, etc., published by officers and fellows of the University during the period extending from July 1, 1908, to June 30, 1909, with some titles omitted in previous lists.

Adams, J. Q., *jr.* Index. (A manual of American literature, edited by T. Stanton, 1909, p. 457.)

Also in Tauchnitz ed., p. 523.

—— An unnoted parody of Hamlet. (Modern Language Notes, June, 1909, vol. xxiv., p. 179.)

Albee, E. The present meaning of idealism. (Philosophical Review, May, 1909, vol. xviii., p. 299.)

—— [Review of] The philosophical works of Leibniz; translated by G. M. Duncan. (*Same*, Jan., 1909, vol. xviii., p. 92.)

Alexander, S. Contribution to the surgery of the prostate. (Annals of Surgery, Aug., 1908, vol. xlviii., p. 267.)

Also separately reprinted.

—— Contribution to the surgery of the prostate; prostatectomy in the treatment of prostatic abscess of gonorrheal origin. (Boston Medical and Surgical Jour., 5 Nov., 1908, vol. clix., p. 605.)

Also separately reprinted.

—— Prostatic abscess; observations upon the pathology and operative treatment. (Annals of Surgery, April, 1909, vol. xlix., p. 129.)

Also separately reprinted.

Andrews, A. L., *editor*. Hálfs saga ok Hálfsrekka. Halle, 1909. 8°. pp. viii. + 141. (Altnordische Saga-Bibliothek. 14.)
Text-ed., with introduction and commentary.

—— *Same*, Teildruck, Einleitung. [Kieler Dissertation.] 1908. 8°. pp. 68.

Atkinson, G. F. Motions proposant des articles additionnels sur la nomenclature des champignons; présentées au IIIe Congrès International de Botanique à Bruxelles, 14–23 mai, 1910.
Also in English, Ithaca, 11 March, 1909.

—— A new poisonous mushroom. (Botanical Gazette, Dec., 1908, vol. xlvi., p. 461.)

—— Notes on the occurrence of rhodochytrium spilanthidis Lagerheim in North America. (Science, 13 Nov., 1908, N. S. vol. xxviii., p. 691.)

—— Observations on polyporus lucidus Leys and some of its allies from Europe and North America. (Botanical Gazette, Nov., 1908, vol. xlvi., p. 321.)

—— On the identity of polyporus applanatus of Europe and North America. (Annales Mycologici, June, 1908, vol. vi., p. 179.)

—— A parasitic alga, rhodochytrium spilanthidis Lagerheim in North America. (Botanical Gazette, Oct., 1908, vol. xlvi., p. 299.)

—— Subterranean fungi. (*Same*, Jan., 1909, vol. xlvii., p. 76.)
A review of Zur Morphologie der Hypogæen; von E. Fischer.

Bailey, E. J. The novels of George Meredith, a study. (English ed.) London, 1908. 12°. pp. viii. + 226. *Port.*

—— Outlines of English masterpieces. No. 7–10. Albany. 4 nos. sm. 16°.

—— Browning's theory of romantic love. (Arena, March-June, 1909, vol. xli., p. 274.)

—— The essayists and the humorists. (A manual of Amer. literature, edited by T. Stanton, 1909, p. 321.)
Also in Tauchnitz ed., p. 360.

—— A modern disenchantment. (Scribner's Magazine, May, 1909, vol. xlv., p. 632.)

—— A note on Mr. Meredith's "Modern love." (Forum, Sept., 1908, vol. xl., p. 245.)

—— Outlines of English masterpieces (10 articles). (Amer. Education, Sept., 1908–June, 1909, vol. xii.)

Bailey, H. C. *See* **Hatcher, R. A.,** ***and*** **H. C. Bailey.** Tincture of strophanthus and strophanthin.

Bailey, L. H., *jr.* Beginners' botany. New York, 1909. sm. 8°. pp. ix. + 208. *Plate, photo-engrs.* and *wdcts.*

—— The College of Agriculture and the state; an address delivered on the occasion of farmers' week at Cornell University, Feb. 26, 1909. n.p., 1909. 8°. pp. 36.

—— First course in biology. New York, 1908. sm. 8°. pp. xxv. + 204 + 224 + 164 + x. *Illus.*

—— The horticulturist's rule-book; a compendium of useful information for fruit-growers, truck-gardeners, florists and others. New and revised ed. New York, 1908. 16°. pp. ix. + 312. (Garden-craft series.)

—— The state and the farmer. New York, 1908. sm. 8°. pp. xii. + 177.

—— College men as farm managers. (Century Magazine, Nov., 1908, vol. lxxvii., p. 147.)

—— The farmer at home. (Independent, 3 Sept., 1908, vol. lxv., p. 526.)

—— The Graduate School of Agriculture. (Cornell Countryman, Oct., 1908, vol. vi., p. 7.)

—— The great American fleet. (Independent, 2 July, 1908, vol. lxv., p. 9.)

—— The tile drain. (Cornell Countryman, Feb., 1909, vol. vi., p. 147.)

—— To a graduating class, and others. (*Same*, June, 1909, vol. vi., p. 292.)

—— *editor.* Cyclopedia of American agriculture. Vol. iv. New York, 1909. 4°. pp. xiv. + 650. *Illus.*

Baldwin, W. M. The topography of spinal nerve roots. [Proceedings of the Assoc. of Amer. Anatomists.] (Anatomical Record, July, 1908, vol. ii., p. 155.)

Bancroft, W. D., *editor.* The journal of physical chemistry, 1908–1909.

Barringer, T. B., *jr.* The incidence of glycosuria and diabetes in New York City between 1902 and 1907, with a report of two cases of essential pentosuria. (Archives of Internal Medicine, May, 1909.)

—— The treatment of pulmonary œdema by artificial respiration. (*Same.*)

Bedell, F., and **A. C. Crehore.** Alternating currents, an analytical and graphical treatment for students and engineers. 5th ed. New York, 1909. 8°. *Illus.*

—— *editor.* The physical review, 1908–1909.

Bennett, C. E. First year Latin preparatory to Caesar. Boston, 1909. sm. 8°. pp. x. + 281. *Folding map, portrs.* and *wdcts.* (Bennett's Latin series.)

—— An ancient schoolmaster's message to present-day teachers; president's address before the American Philological Association and the Archæological Institute of America at the University of Toronto, Dec., 1908. (Classical Jour., Feb., 1909, vol. iv., p. 149.)

—— Bennett's rejoinder to Greene. (*Same,* March, 1909, vol. iv., p. 221.)

Bentley, I. M. The historians. (A manual of American literature, edited by T. Stanton, 1909, p. 89.)
Also in Tauchnitz ed., p. 107.

—— An observation table. (Amer. Jour. of Psychology, April, 1909, vol. xx., p. 278).

—— Psychical research. (New international year book, 1908, p. 600.)

—— Psychology. (*Same,* 1908, p. 601.)

—— [Review of] Mental pathology in its relation to normal psychology; by G. Störring.) (Philosophical Review, Sept., 1908, vol. xvii., p. 549.)

—— *See also* **Titchener, E. B.,** *and others.* Some new apparatus.

—— *See also* **Titchener, E. B.,** *and* **I. M. Bentley,** *editors.* Cornell University studies in psychology.

Bizzell, J. A., *and* **J. O. Morgan.** Third report on the influence of manures on the yield of timothy hay. (Bulletin of the Cornell University Agricultural Experiment Station, Dec., 1908, no. 261, p. 257.)

Black, J. A. *See* **Orndorff, W. R.,** *and* **J. A. Black.** Phenoltetrachlorphthalein.

Blaker, E. Laboratories of Rockefeller Hall. [Proceedings of the 12th Annual Meeting of the N. Y. State Science Teachers Association.] (N. Y. State Education Department Bulletin, 15 Sept., 1908, no. 431, p. 13.)

—— [Review of] A text-book of physics; edited by A. W. Duff. (Physical Review, May, 1909, vol. xxviii., p. 391.)

Brown, M. J. *See* **Browne, A. W.,** *and* **M. J. Brown.** Ein Gasentwicklungsapparat. —— Ein neuer tragbarer Gasentwicklungsapparat.

Browne, A. W., *and* **M. J. Brown.** Ein Gasentwicklungsapparat mit gleichbleibendem, innerhalb weiter Grenzen beliebig veränderlichem Druck. (Zeitschrift für Chemische Apparatenkunde, 2 Oct., 1907, II. Jhrg., p. 509.)

—— —— Ein neuer tragbarer Gasentwicklungsapparat. (*Same*, 15 Aug., 1907, II. Jhrg., p. 426.)

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